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April 1955 house & home

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Frank Lloyd Wright's double-decker flat top above and page 116

Progress, profits & problems in homes open to minorities page 138

Round Table: standard dimensions for building components page 126

Ten more ways to build better for less page 130

Research Village teams builders & architect with industry page 104



GOLD SEAL LINOLEUM FLOORS BOOST HOME SALES

One "basic," smooth-surface floor throughout the house...a floor so colorful and comfortable, it's ready to live with... even without rugs or carpeting. That's what customers are buying! That's the big decorating trend! And that's the reason why you should know all about the best and best-known "basic" floor of them all... Gold Seal Inlaid Linoleum!

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Specifications: 12 "Jackstraw" patterns. 69 other patterns, 6' wide by the yard. 23 other patterns, 9" x 9" tile. Standard gauge. Install over suspended concrete or wood sub-floors. Also ½" gauge, burlap back for heavy traffic areas. Gold Seal Ranchtile Linoleum in 9" x 9" tiles, standard gauge, is the only inlaid linoleum recommended for installation over on-grade concrete . . . with or without radiant heat.



U.S. Gypsum Research Village Features Gold Seal Floors. To explore new techniques in building, United States Gypsum has built 6 Research Homes . . . all employing new design and construction ideas as well as new applications for present building materials. All six homes offer more comfort, more livability, more value. Congoleum-Nairn floors are specified throughout all six of these homes.

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INLAID LINOLEUM · RANCHTILE® LINOLEUM · LINOLEUM, VINYL, VINYLBEST RUBBER, CORK AND ASPHALT TILES · VINYLFLOR · VINYLTOP · CONGOLEUM® AND CONGOWALL® ENAMEL-SURFACE FLOOR AND WALL COVERINGS, *Trade-Mark



FHA puts teeth in protect-the-consumer policy

New orders crack down on secondary financing, force builders to pay cash for their utility systems and distribute profits to customers who use the system if it is sold

FHA gave some of the strongest evidence yet last month of its new protect-theconsumer attitude.

- It issued an order which has the effect of taking some profit out of private utility systems in subdivisions where state or local officials are not exercising controls.
- It cracked down on under-the-table secondary financing behind FHA loans.
- Apparently pursuing its controversial policy that an accused 608 builder is guilty of an illegal windfall until he proves himself innocent, the agency continued to stall off clear-cut decisions in cases where blacklisted builders have sued in court for reinstatement.

Details appear on this and the next page:

Wallace Johnson is fined \$10,000 in FHA crackdown

FHA cracked down on irregular secondary financing practices last month and straightway won a \$10,000 fine from a big Memphis builder.

Dismayed at reported infractions of its oldest and strictest rule, the agency issued orders to its field offices to make sure that home buyers were putting up full equity payments without recourse to any side borrowing. Builders or sellers must now certify—if the local office deems such action advisable—that they have received the entire down payment stipulated and that the buyer has not become indebted to them in raising the cash.

Chattel mortgages. A short time after the order was dispatched, Wallace E. Johnson of Memphis, president of Fairgrounds Homes, Inc., was fined \$10,000 for failing to list all the debts of home purchasers in a defense housing project at Pine Bluff, Ark. Johnson pleaded nolo contendere, said he was "deeply embarrassed" by the incident, paid the fine at once.

Johnson explained the background as dating from the time the payroll was cut at the Pine Bluff arsenal and 93 of the 109 houses in his project were vacant. He hired a salesman and the salesman helped prospective home owners meet the down payments by advancing them the money on chattel mortgages made out to another of Johnson's corporations.

On the applications with FHA, said Johnson, "someone failed to show the new loans." Said his lawyer: "Our error, if there was one, was that we didn't check these applications closely. There was no intent on the part of the corporation to commit wrongdoing."

US District Atty. Osro Cobb contended that in filing the applications Johnson's corporation had "unlawfully influenced" the FHA to approve loans that otherwise would have been turned down.

Texas builders protesting new utilities regulation

The fast-growing problem of how to get water and sewer facilities into new subdivisions came to a boil last month when FHA ruled that in some instances builders would have to finance the job themselves—and for cash.

The boil was not nationwide. It was going strongest in Texas. And for good reason. FHA, taking action to guard home owners against possible unfair utility costs, ruled that the builder or subdivider would be required to install and pay for water-sewer systems unless the job is done by a publicly owned outfit or by a private company "whose services and rates are controlled by a public utilities commission." Moreover, ruled FHA, if the private utility system is sold, the developer must distribute the profit to his homeowner customers, who have already paid for it in the price of their houses.

Texas has no utilities commission. And in Houston, at any rate, where the storm centered, there was no talk of hitching facilities in fast-spreading subdivisions onto the city system to meet the "publicly owned" requirement. Builders were therefore faced with nothing but to go ahead and dig up capital for such utilities. But the rub was that Texas builders were pretty well blocked from selling any water-sewer system that they did build. FHA prescribed that such sale could be made only to "a governmental authority or utility company controlled by a state public utilities commission."

Whys and wherefores. Commissioner Norman Mason flew to Houston (to speak at opening ceremonies at the mammoth Sharpstown development*) shortly after the news broke. He was greeted, he told a House & Home editor swinging through the Southwest, with something less than traditional Texas hospitality. Right off the bat he was served notice that he must answer a petition filed in Federal District Court there by the Memorial Bend Utility Co., asking that the new FHA

ruling be set aside. The company claimed that three days after it had executed deeds of trust to serve the Memorial Bend development and 1,000 additional acres it received news that FHA's eligibility rules had been revised; that it had nearly finished installation of a water-sewer system in the first section of the project; that its \$270,000 investment in the system would be jeopardized by the ruling.

What lay behind the new ruling? Commissioner Mason, settled in town for speechmaking, explained it this way: "The Congress and President directed me to run FHA for the benefit of everyone. We set up study groups to find possible future trouble spots. One such possible trouble spot was community facilities. The problem is not alone, but largely, in Texas, which does not have a public utility commission. The new regulation is the result of that study. It seeks to insure that home buyers have a right to acquire utilities in a development where they have purchased when the community is big enough. The value of the land and utilities is in FHA's appraisal. The public doesn't often understand that, Buyers shouldn't have to pay twice for their utili-

Double profits? What Mason had in mind, it appeared, were instances where buyers had paid once for a private utility system (in the price of the house) and then paid again when the system was sold to a city, which thereupon assessed the owners to get its money back.

Texans objected to the ruling. "I can't see how this regulation can work fairly for the builder-developer," said Houston Builder F. L. Woods. "I developed several tracts and never had any trouble, but I was doing good to just get my costs back on utilities I put in. We just can't get an FHA valuation on a new tract until this thing is cleared up. The delay ties up my working capital."

Commented Miles Strickland: "If there is no future profit in a sewer or water system, then nobody wants to run it. There is little or no profit in them for the builder-developer right now."

"To make a developer-builder give away a facility is ridiculous," said Developer Martin Nadelman.

Skin a cat. Reaction in other parts of the country was milder. Most states have regulatory commissions. Maryland, for instance, regulates water rates, but not sewage. Florida has no state regulation, but the busiest building area, Miami, has county rules.

Builders there were not all-out in favor of either the local law or the new FHA rule, but they were not dynamically opposed, either. (Building is going at such a pace in Dade County that it can seemingly take the gadflies of legislation with a shrug and a slap.) If state and county health authorities will not approve septic tanks and water wells in a proposed subdivision, the county makes the

^{*} He commended Frank Sharp for the "wonderful opportunity" his project (Aug. '54, News) had given "the relatively small scale builder," added: "The tragic scarcity of developed land awaiting the skill of the small homebuilder creates one of the few roadblocks in housing today."

builder provide sewer and central water supply systems. He must execute a trust agreement fixing the maximum rates to be charged and post a performance bond; then if he fails to maintain the rate schedule and provide adequate service, the county can have a trustee take over. The agreement also forbids the builder to sell his system to any one except a government agency.

What about cost? Comment from Dade County builders on the new federal ruling emphasized three things: water-sewer systems are a poor investment to begin with; their operation should be a government function, anyway; and last but not least the new order might raise the price of houses.

"A chicken has come home to roost," said James M. Albert, president of the Home Builders Assn. of South Florida, whose organization opposed the county utilities law. "We feel such public utilities are a function of government, but we also fear that the new rule may favor the big developer, who is generally well-heeled or financed, and penalize the small builder."

Julius Gaines, builder for the 10,000-home Carol City, commented that the rule would not affect the big project now (conveniently enough, since the developers' long-range plans for profit hinge on operation of utilities systems), but said he could see where it would run up cost of homes because of the necessity of prorating the complete cost of water and sewage systems. "At Carol City," he said, "we expensed the cost of the sewer and water lines, but we financed a \$450,000 plant. Had we expensed that, too, it would have forced us to raise the price of the first 1,500 homes which this plant will serve by \$300 per house"

N. B. Rood, developing Myrtle Grove Estates, and Frank Mackle of the Mackle Co. agreed that nothing would suit them better than to expense the cost of water-sewer systems and then turn them over to a government agency—at cost, if necessary. Mackle, biggest south Florida builder, warned such a course would have upped the price of one current tract of small homes from \$4,950 to \$5.250.

The upshot seemed to be that if a builder could get a municipality to buy his water works (even in Texas) he would still be ahead. How municipalities would feel about this—what with bond issues, rise in tax rate, etc.—was another-colored horse.

FHA to keep suspension policy, says Mason; agency broadens effect of questionnaires

FHA Commissioner Norman Mason came out with some stubborn talk about blacklists and questionnaires in Miami last month.

"We feel the government has a right to know all about builders or anybody else who wants to do business with the government" he said, "and we propose to continue requiring full disclosure on Forms 2570 and 2571." (The first is a two-page form required of anyone applying for FHA insurance. If he states that he has participated in a 608 project, he must file the three-page 2571, giving full financial details.)

Mason said he did not know how many of the 4.000-odd builders who refused to answer the first 608 questionnaire of last summer were still suspended from processing, but "I am sure . . . that those who have persisted in refusal still are. . . . Our policy on 608 builders is one we believe to be in the public interest. It is designed to let us find out who the stinkers and crooks are so they can be dealt with accordingly. Our suspension policy . . . is not a forever or irrevocable thing. A builder can get himself straightened out if he will make a reasonable effort."

"If he hits the sawdust trail, repents and promises to sin no more?" asked a reporter. "Precisely," said Commissioner Mason,

New move. Meantime, FHA reinterpreted its questionnaire policy with a decision that even builders seeking an extension of a commitment would have to fill out and file a previous participation certificate. What experts thought was serious about the new interpretation was that lenders in such cases, accustomed to thinking of FHA commitment issuance as a guarantee of future insurance, might start questioning the reliability of such guarantees. There was no telling what FHA might do when it received a builder's Form 2570—suspend judgment, ask more questions,

even deny insurance—and the lender might well become chary of providing financing.

Good and bad. The Portland (Ore.) Real Estate Board was one of the first to protest the new forms. It cried that FHA was creating "an appalling roadblock for the small home purchaser," was in fact "violating its own purpose of encouraging home ownership." The resolution paid off. The Portland board heard that other boards were following suit with similar protests. Two weeks later FHA amended the questionnaire requirement to exempt applications for conditional commitments on existing property owned by an individual and built more than a year prior to the date of application.

It was good news in Oregon, at least. About 70% of applications there are currently for existing homes. Realtors estimated the amendment will remove the necessity to file a Form 2570 in about 60% of cases.

Court case. Meantime, Robert Coates of Portland (Prescott Corp.) ran up against another stalemate in his efforts to force FHA to do business with them. Blacklisted since before Christmas, Coates had obtained a court order requiring Commissioner Mason to appear in federal court in Portland late in February. Arthur J. Keeffe, special assistant to FHA General Counsel Frank Meistrell, turned up instead, argued with Coates' lawyers whether the court had jurisdiction. The judge took it under advisement.

Atty. Keeffe said at the hearing that Coates had been taken off FHA's ineligible list Feb. 21; Coates said nobody had told him so. Keeffe added that, like all 608 builders, Coates now must have his commitments processed in Washington and must fill out the new 608 questionnaire (Coates filled out the

608 questionnaire of last summer, but FHA complained that he had not adhered to the required method of listing costs in his projects.) Coates therefore decided last month that he would make "several" test cases of his on-again-off-again status, would apply for home loan commitments, fill out the previous participation certificate and check paragraph 7a, stating that he has filed a 608 cost questionnaire. Clarification might conceivably be forthcoming.

Ask mortgage turnback. The other noteworthy blacklist case involved E. J. Burke of San Antonio, a builder blacklisted in September, cleared for about six weeks toward the end of October and cut off again.

John Peace, attorncy for the builder, wrote Keeffe of the FHA in the middle of February, recalling a conference with Keeffe in Washington at which time FHA "demanded that these apartment projects prepay the mortgages to the mortgage company in the aggregate amount of \$329,000, as a condition precedent to my clients being removed from the blacklist." Peace wrote Keeffe that after he returned home and consulted stockholders of the company "my clients feel that they must decline the demand made by your office. . . ." The Burke enterprises then filed suit for an injunction that FHA be required to accept their applications, with a hearing set for Feb. 24.

The hearing resulted only in the Burkes being given a chance to find out how processing worked with the new forms. Like Coates, Burke had filed the previous 608 form but had run into FHA objection that his costs were only estimated, not actual. If Burke finds that he is still being refused processing, he can again request an injunction.

VHMC to get VA direct loans first; VA probe set

The VA program, one of the chief discussion points in the big housing boom debate (p. 136), made news in a couple of other quarters.

The agency issued an order that applications under its direct lending program will



20-day consideration period. If VHMC is unable to place the loan privately during that period, the application will be returned to VA. Thomas J. Sweeney, loan guarantee chief, told the House veterans affairs committee that he hoped this

be channeled to the Vol-

untary Home Mortgage

Credit committee for a

TEAGUE

system would cut away some of the backlog of direct loan applications.

Sweeney also told the committee that he had issued instructions that veterans shall be ineligible for direct loan assistance if the only reason they cannot get mortgage money in the commercial market is that they do not want to pay closing costs or that the builders with whom they are dealing do not want to pay the discount prevailing in their area. "There is no justification for direct loans to be made in such cases," he said.

Meantime, a new specialist was added to the House veterans affairs committee to help

out with a quiet examination of VA foreclosure and management policies and to assist generally in housing studies. He is J. Buford Jenkins, former VA employe who did some of the spade work for Committee Chairman Olin Teague (D, Tex.) when he investigated the VA home loan program a few years ago. Teague's new examination-to be run by the loan guarantee subcommittee-will center on complaints that veterans are being induced to go through with loan applications without ever intending to occupy the homes they buy (Jan. '55, News). Committee members were not concerned over "friendly deals" through which a veteran might use his rights to buy a house for a relative; they were looking for instances of commercialization of this practice.

Senate approves \$100,000 more for FHA inquiry

Congress passed a bill boosting FHA's authority to insure mortgages by \$1.5 billion—enough to last through June. The Senate gave its banking committee \$100,000 to continue investigating FHA.

SIDELIGHTS

Lakewood story

Hollywood switched suddenly from the lives of the composers to biographies of great subdivisions. Movie in the works: Universal-International's "The Lakewood Story," revolving more or less around the Mark Taper-Lou Beyar development near Long Beach, Ca'if. Casting to date includes the project, which will play itself.

Antitrust verdict hits roofers

The administration's stepped-up antitrust activity, moving increasingly often against building groups, hit pay dirt in Detroit last month. The Detroit Sheet Metal & Roofing Contractors Assn., 15 of its member companies and 18 officers of these firms were fined a total of almost \$50,000. The fines resulted from a criminal action under the Sherman Act after the government determined that about \$10 million worth of built-up roofing was done in Detroit and vicinity in 1951 (\$7½ million for

"bonded roof" construction) and that the defendant contractors did about 70% of the total business and about 90% of the "bonded roof" business. The court listed 10 types of conspiracy engaged in by the defendants, most of them involving bid fixing. In a civil action, it ordered the dissolution of the association.

Wage bill worries builders

A bill to stretch the prevailing wage law to apply to FHA and VA single-family houses hit Congress last month. The Davis-Bacon Act now requires builders to pay what the Secretary of Labor certifies as "prevailing wages" on construction of FHA units for more than four families. Amendments proposed by Sen. Earle C. Clements (D, Ky.) and Rep. John E. Fogarty (D, R.I.) would spread the requirement to cover all types of federally-aided building. Builders fear the amendment also would open the door to rapid unionization of housing, now half open shop.



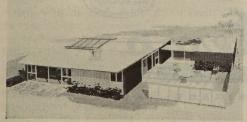
WESTERN house emphasizes separation of Children's bedrooms from their parents'.



EASTERN home only non-ranch type, has dining room, favored by 41% of homemakers polled.



SOUTHERN model's utility core serves as noise baffle between living areas and bedrooms.

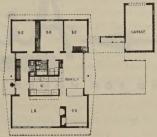


MIDWESTERN house shows good use of lot and pleasant indoor-outdoor quality.









Hotpoint houses for four climates

to promote privacy

The personal housing tastes of 40,000 young homemakers (under 35 years old) influenced the design of these four homes.

Hotpoint Co. has arranged for construction of the four test models by May 1 (in Clifton, N.J.; Mt. Prospect, Ill.; Knoxville, Tenn., and San Francisco) and during the ensuing publicity will run an essay contest with prizes valued at \$2 million to celebrate its 50th anniversary. Living for Young Homemakers was in charge of planning and made the survey, in cooperation with NAHB.

A majority of those polled wanted contemporary architecture, two baths and a garage, among other things. All the homes are planned to fall within the \$15,000-\$20,000 price range.

Unlike the creators of the televised "Home" house (p. 77), Hotpoint decided that it would take at least four models to meet the varied climatic conditions of the nation. There are therefore some differences between the homes. Sadly enough, the big difference occurs in the Eastern home. It is a split level (no one has ever understood why the East has to end up with the lion's share of the nation's split levels), has a utility basement and a separated dining room. As splits go, it is not bad. For one thing, the kitchen is placed rightnot shoved off into the rear of the house as in so many splits. The other three houses are built around a utility core plan. All the homes have the now-expected recreation room and all have been soundproofed between sleeping and living quarters to meet what Hotpoint calls "the yearning for safety, quiet and privacy which is instinctive in all human beings."

Architects and builders: Western: Donn Emmons and Stern & Price; Eastern: Stanley Reese and Harold Kramer; Southern: Bruce McCarty and Martin Bartling; Midwestern: Norman C. Nagle and Towne Development Co.

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HEATING FOR HOMES, BUSINESS, INDUSTRY

Keep HHFA, Hoover commission recommends

Study ignores own task force report urging that agency be sliced up, stripped of welfare programs

The Hoover commission last month recommended 20 changes—some drastic and many controversial—in the organization and activities of federal housing agencies.

It urged that FHA be reorganized to provide its own financing. It said lenders should share more risk on insured loans. It urged that the VA mortgage loan program be allowed to expire on schedule. It suggested FNMA be stripped of its special-assistance functions. It urged the government to stop making loans for college housing, and advances for planning state and local public works.

The report to Congress of the 12-man commission headed by Former President Hoover was one of a series on reorganizing the government. President Eisenhower has ordered a follow-up review of the recommendations by agencies affected. The bulk of the ideas could be put into effect by Presidential reorganization, subject to congressional veto. But it is far from certain Eisenhower will go along with the commission.

The commission's report was based on a task force study which delved deeper into the philosophy underlying federal aid to housing and came up with far more pointed suggestions for revamping it. The following analysis of the two documents is by Economist Miles L. Colean:

Because of the greater understanding it displays of the intricacies of the government's involvements with mortgage credit, and, even more, the closely reasoned statement of principles on which its conclusions are based, the task force report will be recognized as more significant. The idea of evaluating governmental activity on the basis of principle rather than political expediency is alone enough to give this report special significance. By comparison, the commission's report, which never gets far beyond a limited concern with organization and administrative procedure, is an anticlimax.

Who's who. Among the members of the task force, credit for the sections of the report dealing with the housing agencies goes largely to Paul Bestor, president of the Trust Co. of New Jersey; George L. Bliss, president of Century Federal Savings & Loan Assn., New York; Henry T. Bodman, vice president of the Natl. Bank of Detroit; along with the chairman, Paul Grady of Price Waterhouse & Co., and the able staff director, Theodore Herz of the same firm. Grady and Herz held the same positions on a corresponding task force for the 1949 Hoover commission. That time, too, the task force disagreed with the commission's point of view.

The task force finds justification in the use of the public credit "to stimulate the organization and development of new facilities needed in the nation's credit system," such as the Home Loan Bank System, the deposit and savings insurance corporations, and the FHA system of mutual mortgage insurance as originally conceived. It endorses the use of government power to strengthen the credit system when needed. It "finds no fault with the use of the government's credit to serve the legitimate needs of procurement for defense and war." It offers no views on whether government lending to other nations or their industries "is desirable or necessary when it is undertaken primarily as an instrument of international political policy.'

On the other hand, the task force strongly opposes use of public credit "to help individual people and businesses to improve their

competitive positions," and hence "to discriminate against those who do not qualify for similar assistance" but who must nevertheless foot the bill for whatever losses may occur. In this class of activity the task force includes loans for public housing and urban renewal, VA direct loans and loan guarantees, loans to prefabricators and colleges, loans for Alaskan housing, and the whole latter-day accretion of special forms of mortgage insurance grafted on the original FHA stock.

The task force is plain about its reasons:

The special-class activities tend to relieve the borrower-owner of both the risks and re-

sponsibilities of ownership.

They help to start and perpetuate mistaken enterprise and hence to hinder normal enterprise. ("It is not possible for the government to assist one competitor without placing handicaps in the path of another.")

They remove the lender's interest in and responsibility for the loan transaction.

They encourage the irresponsible promoter and lead to excessive advances, degradations of the credit function, and corruption. ("Government lending tends to increase the incidence of irresponsibility in the undertaking of business transactions, including undertaking to own a home.")

Fatal attraction. Warns the analysis: "Government lending programs and government guarantee programs have a fatal attraction politically. They can be used handily to bestow favor on particular groups and persons. Through them the use of the nation's wealth can be channeled to those people who are adjudged to have the need but not the means, and this can be done in large part without the appearance of taxing those who have the means. For lending purposes, the savings and other wealth of the people are assembled in the national treasury by issue of the government's obligations in one form or another, and through the lending programs, they are applied where their owners would not otherwise willingly apply them. Indirectly, this is compulsory lending. It is politically acceptable-even desirable-because the compulsion is concealed by the indirection. . . .

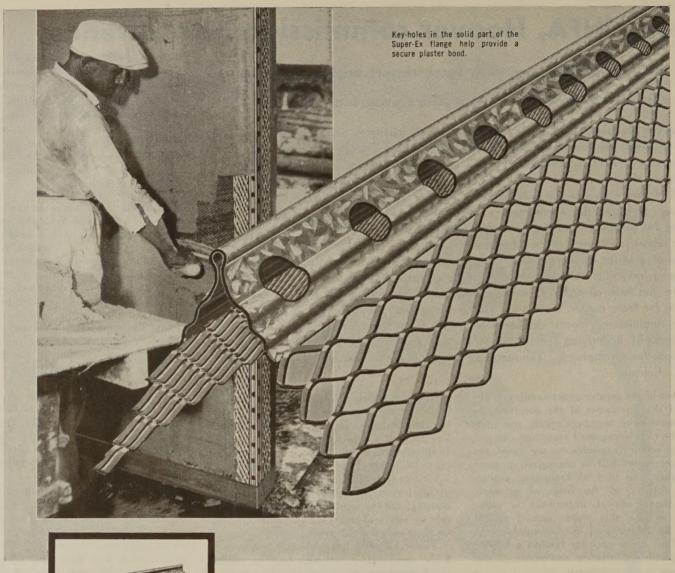
"Because it is attractive politically, government lending grows and grows. Each successive national administration offers more than the last lest there appear to be retrogression where progress is desired. . . . On the face of it, the only way for a new national administration to offer more than its predecessor did is to expand the volume of the programs and the fields in which they are available, and to ease up on the standards so that more and more people can have the advantages with less and less risk on their own part."

(continued on p. 43)

HOOVER COMMISSION RECOMMENDATIONS

- 1. Federal Savings & Loan Insurance Corp. should pay off its remaining Treasury stock or exchange it for a noninterest bearing credit.
- 2. Either eliminate HHFA powers to transfer Home Loan Bank Board funds or restore independence of the HLBB.
- 3. Require that authorization of Treasury to buy obligations of Federal Savings & Loan Insurance Corp. and the home loan bank system be carried on Treasury books as a contingent liability.
- 4. Give FSLIC separate management from the HLBB.
- 5. Make studies of prospective foreclosure and loss in government housing programs.
- 6. Tighten up FHA rental housing more to take full advantage of the "commendable provisions of the 1954 Housing Act."
- 7. Give the President power to increase equities required on new FHA mortgages and make extensive use of the shared-risk principle with lending institutions.
- 8. Reorganize FHA so it would be able to "provide its own financing without having to call on

- the government for funds."
- 9. Retain present termination dates of the VA-guaranteed loan program.
- 10. Transfer the special-assistance functions of FNMA to some other agency.
- 11. Authorize the President to establish the equities for the special-aid functions.
- 12. Confine aid to public housing and urban redevelopment to grants or subsidies, eliminating federal loans for such schemes.
- 13. Change name of either FHA or PHA to avoid confusion.
- 14. Speed up liquidation of war housing and other federally owned housing.
- 15. End college housing loans.
- 16. Speed up liquidation of loans to prefabbers.
- 17. Speed up liquidation of Alaskan loans.
- 18. Government should promptly dispose of all property repossessed under the FHA and VA programs.
- 19. Stop making advances for planning state and local public works.
- 20. End power to make loans for public works construction.



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BALTIMORE 5, MD. • BUFFALO 11, N. Y. • CHICAGO 9, ILL. • CINCINNATI 25, OHIO • CLEVELAND 14, OHIO DETROIT 2, MICH. • KANSAS CITY 41, MO. • LOS ANGELES 58, CALIF. • NEW YORK 17, N. Y. • ST. LOUIS 10, MO.

4065 WEST BURNHAM STREET . MILWAUKEE 1, WISCONSIN

4025 WEST BURNHAM STREET . MILWAUKEE 1, WISCONSIN

4037 WEST BURNHAM STREET . MILWAUKEE 1, WISCONSIN

From that philosophy, the report develops two policy recommendations pertinent to housing:

- 1. "Whenever the government finds it necessary or desirable to assist one class of our people in its competition with another class, it should do so openly and frankly and by means other than the lending of its funds or its credit."
- 2. "Whenever the government finds it necessary or desirable to assist all of our people to insure themselves against a common economic risk, it should do so by organizing or sponsoring the organization of an insurance activity which is genuinely mutual" so as to spread the risk of loss "in proportion to the exposure and not in the proportion in which the tax burden rests on the people."

Dismontle HHFA. To carry out its ideas and guard against the dangers and abuses the task force urged a clean separation of credit functions from subsidy functions by 1) dismantling HHFA, 2) restoring the independence of the Home Loan Bank Board and the FHA, 3) putting welfare-subsidy functions in the Dept. of Health, Education & Welfare (at the same time eliminating any authority to extend credit for these purposes), and 4) letting VA lending and guarantee programs expire at their present termination dates.

The Home Loan Bank set-up would be otherwise unaltered, except that it would get authority over FNMA. The government mortgage agency would be reduced to a strictly secondary market facility bereft of specialpurpose functions. These would be wholly discarded on the theory that it is better for government to cope with emergencies, as it always can, with measures suited to the occasion, than to have emergency agencies always at hand and seeking employment. Other extraneous loan functions now vested in HHFA would also be eliminated. Implicit in the report is the assumption that FHA would also be relieved of the paternalistic responsibilities to borrowers that have so complicated and protracted its procedures.

The independent FHA would be incorporated as a mutual insurance trust, with status similar to the Federal Deposit Insurance Corp. It would operate strictly as the kind of general residential mortgage insurance agency that was originally envisaged, with a single program in each of four areas: property improvement, owner-occupied dwellings, rental housing, and cooperative housing. Both borrowers' equities and lenders' responsibility (by way of greater co-insurance, as now required in connection with home improvement loans) would be increased. All programs would be required to be conducted on a "realistic self-sustaining basis." Argues the task force: "Adoption of these recommendations should make it possible ultimately to convert FHA into a private corporation, thereby freeing the government from any liability, direct or contingent."

Logic ignored. Without so much as a bow to the underlying criteria upon which the task force based its judgments, the commission report proceeds to its own recommendations. Committed to the idea of reducing the number of independent agencies irrespective of the logic, or lack of it, in their combination, the commission would retain HHFA with substantially its present authority. Then, disregarding its own premise, the commission admits the possibility of getting the Home Loan Bank Board out from HHFA.

While the commission would end some miscellaneous functions of HHFA (as urged by the task force), the commission would retain the special-purpose functions of FNMA. It would take these welfare functions out of FNMA's jurisdiction, leaving some undesignated agency to worry with them.

FHA, according to the commission's recommendations, should be left within HHFA, with all its complications intact and its paternalistic responsibilities unrelieved. But it should be reorganized in "such a manner that it will provide its own financing without having to call on the government for funds." The main point of the task force recommendation—separation of credit from welfare operations—is thus wholly missed.

Both in principle and in detailed recommendations the task force comes close to the ideas put forth by House & Home's Round Table on housing policy (March '55 issue). The task force is not widely apart from the commission except on the need for a cleancut separation all down the line between credit and subsidy. All three-task force, Round Table and even the commission-are in agreement in at least one thing: the form of organization and the concepts of functions embodied in the Housing Act of 1954 leave something to be desired. That measure, a much compromised interpretation of what President Eisenhower's housing advisors urged, provides a functional confusion mounted in an administrative nightmare that does

not satisfy any of the three groups of reviewers,

Despite this, it is questionable that any fundamental changes will be suggested by the administration. The current trend has been toward greater rather than less for HHFA and toward more rather than less mixture of credit and subsidy. A rider to last year's Independent Offices Appropriation Act, which gave the HHFA Administrator "full authority to assign and reassign functions, to reorganize and make whatever changes" in the constituent set-up, "including the reallocation and transfer of administrative expense funds and authority" (presumably covering the private funds of FHA), appears to be quite satisfactory from the administration's point of view.

Lawyer gets year in jail for contempt in FHA probe

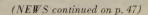
Federal Judge F. Dickenson Letts, who gave Clyde L. Powell a year's sentence for contempt six months ago, handed a similar sentence last month to New York Lawyer Abraham Traub.

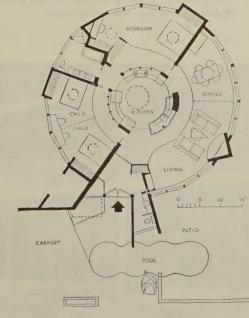
Traub had refused, like the former FHA rental housing boss, to answer questions before a grand jury investigating the FHA scandals in Washington. He was found guilty of not producing documents the court wanted concerning his fees in 1947-53, and of refusing to tell the jury whether he had brought the documents to the courtroom. Traub's silence blocked efforts to find out more about his alleged financial association with Powell in the past.



Circular home show house has kitchen as hub

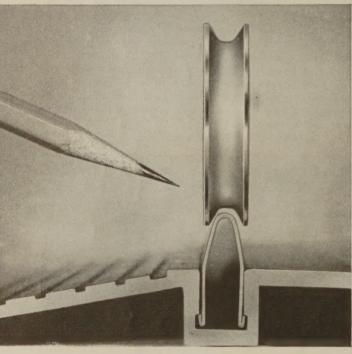
Los Angeles builders have picked their most unconventional design yet for the model home for the 10th annual LA home show this June. It is a circular dwelling, with kitchen in the middle, reflecting its key position these servantless days. The sponsoring Building Contractors Assn. will stress the advantage of circular design for families with a handicapped husband or child. The theory is a housewife can see anywhere about the premises while hovering over a stove or cutting board. Although a circle encloses more square footage than any other shape per linear foot of wall, Architect Alfred T. Gilman estimates this 1,600 sq. ft. house will cost about \$18,000 without lot, or 10 to 15% more than an ordinary home. The house, dubbed "Home with a Heart," will be built by William Baines Co. After the show, it will be displayed on a site, later sold.







Positive weather stripping is demonstrated by this hose test. Ador units are completely weather stripped on all four sides of the vent with high-pile mohair weather stripping. This permits installation of Ador units in any climate or location regardless of sand, water or dust.



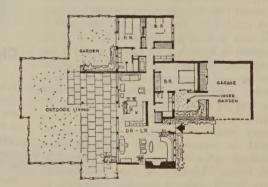
Bearing and track detail of Ador unit. The use of a unique stainless steel track together with stainless steel roller bearings assures easy fingertip operation of sliding unit. Note the flush threshold and clean sill design, free of deep heel catching ridges.



Beautiful, yet completely functional is the Ador lucite handle hardware being shown here to builder John Pagliuso. The hardware is designed to provide years of trouble free service.



Sliding Glas



Many new locations for sliding glass doors were evidenced in recent survey that showed door units being installed in almost every room in the house. The most common use is living room, with bedroom, den, and dining room installation becoming increasingly popular.

Competitively priced aluminum sliding glass doors can be installed in small homes, motels and apartments. Illustrated is a six unit apartment with Ador sliding glass doors overlooking the sea at Palos Verdes Estates, California.



Forty feet long and eight feet high is this Ador unit in the home of Mr. Robert Finkelhor, architect and builder. It demonstrates the all-aluminum door's complete versatility. Tubular extrusions, and precision construction provide almost unlimited installation possibilities for Ador sliding glass doors.

Door Installations on Increase in Home Construction

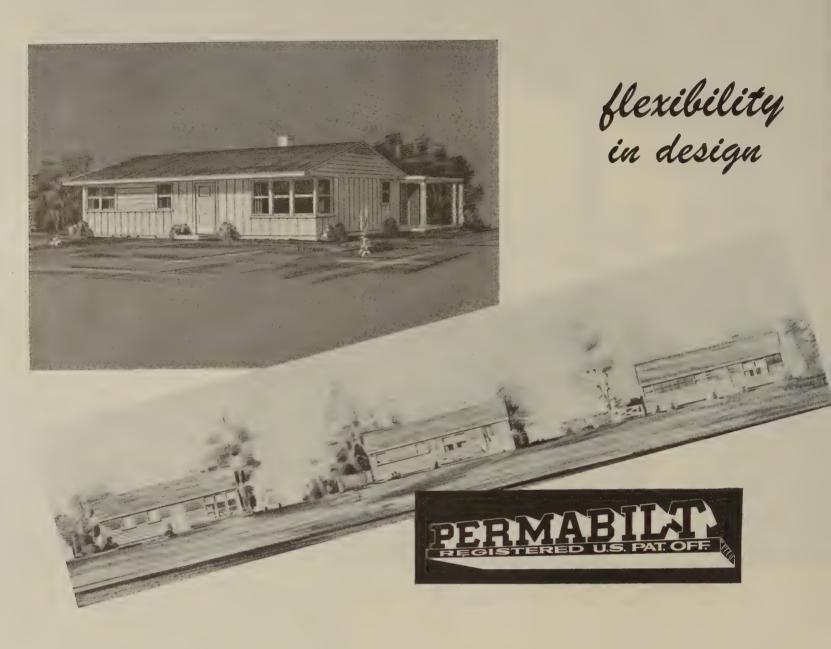
All Aluminum Doors with New Design Features Contribute to Growth in Indoor-Outdoor Living Trend

The biggest news in building today is the rapidly increasing use of sliding glass doors in all classes of residential construction.

A recent survey in Southern California showed sliding glass door installations in more than half of all tract, and in two-thirds of all custom construction. The trend also points to more and more sliding glass door use in localities outside the so-called "sun areas," and in varied types of architecture.

An important contributing factor has been the development of the Ador all-aluminum sliding glass door. This new door offers for the first time a combination of such features as: all-aluminum tubular extrusion construction for greater structural strength; corrosion resistant alumilite finish; beautiful, precision hardware; and a competitive price. The door and frame are delivered as a single, self-contained unit for easy installation.

Complete literature and specifications for Ador sliding glass doors may be obtained from Ador Sales, Inc., 1631 Beverly Boulevard, Los Angeles 26, California, or Ador Distributors and Dealers located throughout the country.



... no sacrifice in Quality!

Illustrated above are some of the variations of our new Dundee Model, featuring the popular low pitch roof, and ranch styling. Car port is optional.

Permabilt Homes offer not only wide flexibility in front styling for individuality in appearance, but also almost limitless plan modifications for interior room arrangement to fit buyer's needs. None of these modifications will affect Permabilt quality, which follows only time proven conventional construction practice. Builders who want to sell quality homes, readily acceptable to all lending agencies for financing, choose Permabilt for this reason. They also get the advantage of complete package delivery, predetermined price, rapid assembly and close-in, plus a wide choice of interior finishing. Write for details on all Permabilt Models and Specifications.



PEOPLE: FHA replaces urban renewal aide, Patterson,

with Beverley Mason; three materials firms name new chiefs

Complaints that FHA was dragging its feet on making urban renewal work reached such a pitch last month that Commissioner Norman Mason replaced his aide in charge of Sec. 220. The official announcement said Ass't Commissioner Loder L. Patterson, six months in office, moved to a legal job with FHA "at his own request." His successor -without the high rank of ass't commissionerwas W. Beverley Mason Jr., 46 (no relation to the



Reni commissioner). Urban Renewal Officer Mason first joined FHA in 1938, in the underwriting section. From 1948 to '53 he was in charge of the construction section of the VA loan guarantee service, then became a Washington housing consultant. He returned to FHA in December 1953.

MASON JR.

FHA's troubles with Sec. 220—as redevelopment experts see it—revolve around valuations, rent levels, economic life, and capitalization rates. The renewal information service of the Natl. Assn. of Housing and Redevelopment Officials reported "several complaints that local FHA offices do not seem receptive to the idea of Sec. 220." Louisville's Mayor Andrew Broaddus got mad enough at the red tape last month to fly to Washington in an effort to change policies he called "silly, bureaucratic, trivial, theoretical, a lot of poppycock. . . ." After a huddle with Commissioner Mason, HHFA's Al Cole, two senators and other brass, he came home somewhat mollified. Broaddus quoted Mason as saying: "When the area is certified [for a workable program] we'll have to work out a plan to go along."

Warren Moscow, former reporter for the New York Times and assistant to the mayor, was named executive director of the New York Housing Authority.

Three big building products producers underwent personnel changes at the top:

Frederick K. Weyerhaeuser, 60, was elected chairman of the board of Weyerhaeuser Timber Co., largest producer of forest products in the

US, succeeding the vencrable but active Laird Bell, 71, Chicago attorney. The new chairman is the brother of President John Philip Weyerhaeuser Jr. and grandson of Founder Frederick Weyerhaeuser. He was born in Rock Island, Ill., was graduated from Yale University in 1917, trained for his career working sum-



WEYERHAEUSER

mers in sawmill and forest jobs. There is little question that he received the chairmanship in recognition of his formidable record in progressive sales management to expand the wood market against the encroachment of competitive materials. He joined Weverhaeuser Sales Co. in St. Paul in 1920, will continue as its president.

Fred C. Foy was elected president and chief executive officer of the Koppers Co. in Pittsburgh succeeding Chairman Brehon B. Somervell, former Army Service Forces commander, who

died Feb. 13. San Francisco-born Foy is a former advertising man, described by an associate as "one of the goingest men I've ever met." He said last month that he and Walter F. Munninkuysen, who has been executive vice president since 1950, and has now been upped to board chairman, had not yet decided just how they



FOY

would divide up Somervell's job, but would "probably proceed along the same lines."

At Iron Fireman Mfg. Co. (a Mr. Big in home and commercial heating equipment now going into

air conditioning), Wayne F. Strong, 47, formerly vice president in charge of manufacturing, was elected president and chairman of the board. The presidency was vacated by the death of Harry Banfield. On the board, Strong takes the place of William J. O'Neill, who had been acting president and was recently named vice presi-

dent of the Petro Division Sales and manager of Iron Fireman's seven retail branches.

NAHB filled its vacant post of director of research with Ralph J. Johnson, chief of housing hygiene activities for the US Public Health Service. Johnson will direct the Construction Dept. and Research Institute (separate, but allied departments), a job held by Leonard Haeger from 1951 until he joined Levitt & Sons in February. Johnson is 40. holds degrees in civil and sanitary engineering and has been in the housing field for ten years-three-and-a-half years in construction and maintenance of war housing projects in the South and Southwest and six-and-ahalf years in the Health Service post. C. O. Christenson, who joined NAHB as associate director of the construction dept. in 1952, was named director of technical services.

Ex-President Richard Hughes of NAHB had a couple of pieces of news: he and his wife, Ruby Lee, had been given a trip to Europe by the Texas Home Builders Assn.-Hughes thought he would start off "the latter part of March and be gone about 30 days"; meantime, he had firmed up plans to move his building business from Pampa to Ft. Worth.

FHA was having trouble filling the job of state director for Arkansas. A few months after J. Marvin Wade resigned from the post last fall to enter private business the agency announced that Homebuilder Russell L. McLean of Little Rock, would take over. Then it rescinded the order. It became known that pressure had been exerted by Sen. J.W. Fulbright (D, Ark.) against the appointment but not, the senator stressed, because he had any candidate of his own in mind. More probably, it was thought, his stand stemmed from the fact that McLean had failed an examination for an FHA construction examiner in 1950.

(NEWS continued on p. 50)

Democrat Fulbright, putting his objection on a best-man-for-the-job basis, therefore had FHA on something of a grid—the more so because as chairman of the banking committee he must pass on all FHA legislation. The senator had suggested that somebody from out of state be given the job. Other possible candidates: William Huey of the Ft. Smith FHA office and Howard Lucy, acting state director for Arkansas.

NAMED: Chester R. Davis, vice president of Chicago Title & Trust Co., as asst. Army secretary; D. E. Nichols, president of Valdosta (Ga.) Plywoods, Inc., as president of the Hardwood Plywood Institute.

DIED: Harry C. Koch, 78, retired vice president of the Lone Star Cement Corp., Feb. 16, in New Rochelle, N. Y.; Charles R. McCormick, 84, west coast lumber and shipping magnate, Feb. 24 in Portland, Ore.; James Linn Rogers Jr., 58, former plastics manufacturer, retired general manager of the plastics and resins division of American Cyanamid Co.., and former vice president of Libbey-Owens-Ford Glass Co., Feb. 24 in New York; Frederic W. Gerhardy, 60, Detroit homebuilder and 1951 president of the Builders Assn. of Metropolitan Detroit, March 1 in Detroit; Earl Franklin Seaman, 62, architect and planner of housing developments in the New Brunswick, N.J. area, March 4 in Irvington, N.J..; Emmet D. Griffin, 75, retired vice president in charge of the paint division, Pittsburgh Plate Glass Co., March 4 in Pittsburgh.



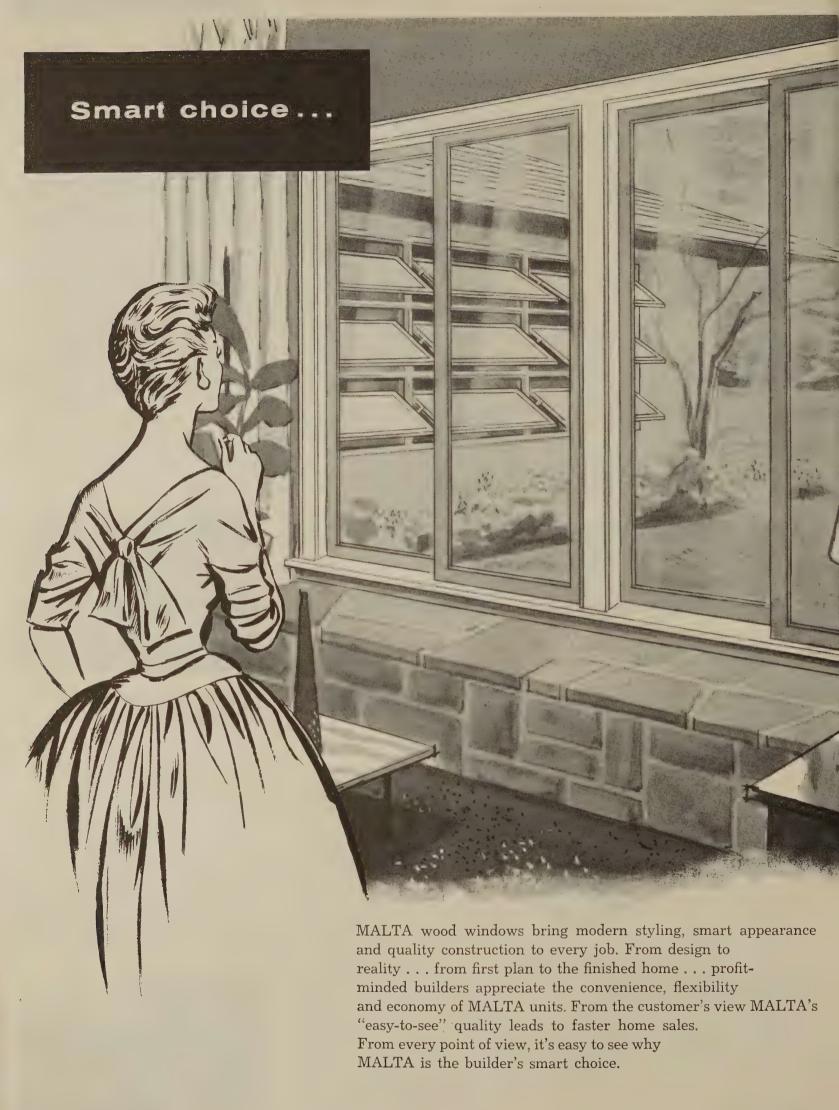
Prize home wins architect sculptured bird award

Architect Gene K. Zema of Seattle won an aluminum bird said to be symbolic of "visionary design in residential architecture" for a home he built for himself in nearby Sheridan Heights.

It was the first award in the city's Home of the Month program, sponsored by The Washington State Chapter, AIA, and the Seattle "Times." Zema's house was one of 12 homes featured the first Sunday of every month last year by the "Times" and opened that day (previous to owner occupancy) to visitors.

The seven-member jury thought Zema's home was "an excellent solution," objected only to the handling of the fireplace and chimney mass. Four other architects won honorable mentions: George Hazen, Lloyd Lovegren, Paul Kirk and Benjamin F. McAdoo.





MALT-A-GLIDE

Choose MALT-A-GLIDE units for modern large glass areas, ribbon windows and picture walls. Customers love this silent operating, horizontal-sliding wood window unit, Easily removable sash provides minute-saving convenience for cleaning or painting. Full weather-stripping and watertight seal means a more comfortable home. Removable jamb liners mean quicker installation and let you use MALT-A-GLIDE units in every type of wall construction.



MALT-A-VENT

Choose MALT-A-VENT units . . . the modern versatile wood windows that economically adapt to a wide variety of single and multiple arrangements. Use for awnings, ribbons, casements or combine for eye-pleasing window walls to give a "luxury-look." MALT-A-VENTS arrive completely assembled, fully glazed, ready to install. Grooved sill allows perfect alignment and easy stacking handy bar-operator is standard equipment. With MALT-A-VENTS, you're installing more buy-appeal all around the house.

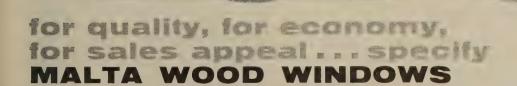


MALT-A-MATIC

Choose MALT-A-MATIC units and give the homes you build the doublehung window styling buyers demand. These popular units feature removable sash, are fully modular and adaptable to every wall thickness, every type of construction. You'll profit from MALT-A-MATIC precision milling and speedy installation. You'll profit, too, from the many features that sell your customers . . . like the spring-loaded metal weatherstripping that permits easy adjustment and gives a lifetime of finger-tip operation.

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HOUSING STATISTICS

Building materials makers report profits up in '54

Building materials manufacturers weathered last year's business downswing and ended the year well in the black. Earnings were up in almost all cases; most manufacturers looked forward to further in-

The increase in profits varied by type of business. The leaders in the gypsum field-US Gypsum and National Gypsum-scored a phenomenal 65.5% and 68.1% rise, respectively (see table). US Gypsum had been working 24 hours a day, still could not keep up with orders. The company will spend more than \$25 million for capital expenditures in '55, more than three times what it did last year. National Gypsum planned to raise an estimated \$19 million additional funds through sale of common stock.

Expansion of earnings slowed in some cases. Johns-Manville Corp. set a new sales record for '54 but showed a drop in net (for the second year) amounting to 15.3%. Chairman L. M. Cassidy said the drop was the result of a shift to accelerated depreciation systems and accrual of vacation pay. Weyerhaeuser Timber, the biggest of them all, dropped 3.4%, partly because of a ten-week strike last year.

Several companies reported that elimination of the excess profits tax urged up earnings-General Electric, after its biggest year ever. and Whirlpool Corp., with earnings up from \$3.6 million to \$6.3 million, among them. Last year's earnings-showing increases unless otherwise noted:

	Pro	%	
COMPANIES	1953	1954	CHANGE
American Rad. & Stand. San. Corp	\$18,714,000	\$20,423,000	9.1
Armstrong Cork Co	9,264,978	11,913,676	28.6
General Electric Co	165,727,889	212,613,221	28.3
Johns-Manville Corp	19,661,412	16,655,658	15.3
Libbey-Owens-Ford Glass Co	19,233,668	24,046,943	25.0
National Gypsum Co	7,821,323	13,144,128	68.1
Pittsburgh Plate Glass Co	36,864,785	38,637,629	4.8
US Gypsum Co	19,558,708	32,371,015	65.5
US Plywood Corp.*	3,850,500	5,097,100	32.4
Westinghouse Electric Corp	74,322,925	84,594,367	13.8
Weyerhaeuser Timber Co	36,751,353	35,510,355	- 3.4
*Nine months ending Jan. 31			

MORTGAGE MARKET QUOTATIONS

(Originations quoted at net cost, secondary market sales quoted with servicing by seller) As reported to House & Home the week ending March 1

	FHA 41/2's		5% equity or more VA 4½'s		No down payment VA 4½'s	
City	Origi- nations	Secon- dary	Origi- nations	Secon- dary	Origi- nations	Secon- dary
Boston local	par-101	а	par-101	a	par-101	а
Out-of-state	a	99-par	a	981/2-par	а	95-99
Chicago	97-99	99-par	97-99	99-par	96-97	98-99
Denver	981/2-par	981/2-par	981/2-par	981/2-par	98-99	98-99
Detroit	971/2-par	98-par	97-par	971/2-par	96-97	971/2-98
Houston	99-par	99-par	99-par	99-par	97-981/2	97-981/2
Jacksonville†	par	par	par	par	97-98††	97-98††
New York	par	par	par	par	99-par	99-par
Philadelphia	par	par	par	par	99-par	99-par
Portland*	par	par	99-par	99-par	97-99	97-99
San Francisco	par	par	par	par	95-971/2	95-971/2
Washington D.C.	par	99-par	99-par	98-par	98-99	97-99

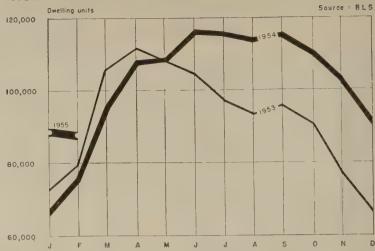
a No market.
* Probable prices throughout Pacific Northwest.

† Probable prices throughout Florida. †† Without closing costs in cash.

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cents Savings Bank; Chicago, Maurice A. Pollak, vice pres. & secy., Draper & Kramer Inc.; Denver, C. A. Bacon, vice pres., Mortgage Investments Co.; Detroit, Robert H. Pease, pres., Detroit Mortgage & Realty Co.; Houston, John F. Austin Jr., T. J. Bettes Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whatley, Davin

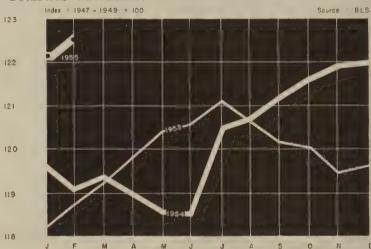
& Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, Robert S. Irving, exec. v.p., W. A. Clarke Mortgage Co.; Portland, Franklin W. White, pres., Securities, Inc.; San Francisco, William A. Marcus, senior vice pres., American Trust Co.; Washington, George W. De Franceaux, pres., Frederick W. Berens, Inc.

NONFARM HOUSING STARTS



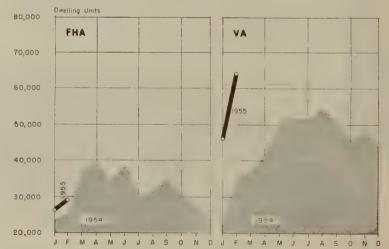
Nonfarm housing starts totaled 90,000 units in February, up 2,000 from January and way ahead of the 75 000 in February '54. But the adjusted annual rate of private homebuilding, based on February starts, dropped to 1,381,000 from January's 1,424,000. For three months now, the annual trend of housing has been declining, after a seven-month rise.

BUILDING MATERIALS PRICES



BLS' wholesale index of building materials prices moved up less than 1% to 122.5 in February from a January reading of 122.1.

FHA AND VA APPLICATIONS



VA appraisal requests for proposed homes soared to 64,192 in February, second only to the pre-Regulation X peak in the fall of 1950. So early in the year, the remarkable VA volume could be interpreted two ways: 1) it could portend an impressive volume of new building; 2) it could reflect a rush for cover by builders in the face of widespread rumors of credit restrictions. FHA new applications for February rose to 28,586 dwelling units, compared with 26,067 last month and 25,703 last year.

(NEWS continued on p. 57)

Prefabricated promotion

Prefabrication enlists 200 dealers to show 'Bride's House.'

Campaign is heralded as biggest simultaneous promotion

of single house in homebuilding history

Remember the girl in the blue negligee at the NAHB convention?

Thousands of builders saw her last January in Chicago when they inspected US Steel Homes' prototype of its "Bride's House of 1955" built adjacent to the Hilton Hotel. What few realized was that they were in on the opening of what appears to be the most ambitious promotional effort ever put behind a single house. US Steel has lined up 200 dealers to build the house and show it this month. The prefab company has budgeted \$250,000 for the drive.

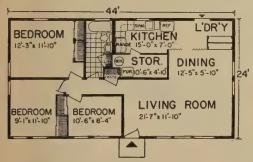
Builders can learn about merchandising from this campaign. There will no doubt be more and more nationwide packaged promotions of prefabbed homes. Local builders will have to compete with it.

Actually, the campaign pushes an *idea* as well as a house, in this case the bride. The Bride's House is an improved (4' wider) version of US Steel's Coronado, its most popular model last year. The notion of hooking it up with such a basic woman's interest was developed by the prefabber, its advertising

Photos: Ingeborg de Beausacq



BRIDE'S HOUSE: 200 CITIES WILL SEE IT



FLOOR PLAN STRESSES OPEN LIVING



FURNISHINGS WILL BE SAME IN ALL MODELS

agency, Batten, Barton, Durstine and Osborn, and House Beautiful's Guide for the Bride. "Bride's House" is a copyright of Guide for the Bride, which has promoted houses under the name, though never before so extensively.

All the stops. The campaign was in the works nearly a full year. Here is the program:

Two hundred US Steel dealers (about half the prefabber's list) will show the house in as many cities this month. It is being announced by US Steel in 15 pages in this issue of House & Home. Guide for the Bride will devote 30 editorial pages to it in the summer issue, out April 12. That same evening, the house will be shown on the "US Steel Hour" TV show. Life will carry a full-page color ad on the house the same week; one-third-page newspaper ads will run April 17 in cities where the houses are being built.

▶ Equally important is the collateral promotion and tie-in advertising worked out with department stores, other national advertisers and local suppliers. One guess puts the dollar value of tie-in merchandising as equal to US Steel's own \$250,000 outlay.

Identical furnishing. Key to the tie-in publicity is the nearly identical furnishing of all 200 houses. Some will have traditional, some contemporary furnishings, but whichever the style, all furniture, floor coverings and fabrics will be supplied by the same 17 companies to all dealers. About 27 other companies will supply building materials ranging from adhesives to weatherstripping. By this close control, the promoters expect to get a

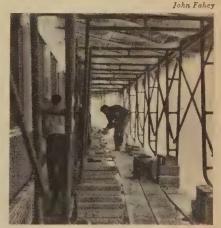


MODEL BRIDE OPENED \$250,000 CAMPAIGN

tremendous range of additional advertising and local publicity.

Arrangements have been made for department stores in many cities to run clinics (how to pick a trousseau, how to clean a house) and some may even sell the houses. And, of course, hundreds of thousands of ad reprints, counter cards, dealer hand-tags, news releases, special scripts for radio and TV stations, envelope stuffers and direct mail letters have already been prepared.





Pliofilm cover keeps masons on job in 13° weather

A pliofilm shroud has licked the problem of laying brick in subfreezing weather for Stan Llewellyn, Spokane masonry contractor.

When the thermometer sank to 13°, Llewellyn averted a cold snap layoff by draping \$85 worth of the covering over the front and both ends of a two-story, \$70,000 apartment he was working

on. Natural light shown through and oil burners at ground level heated the inside. Llewellyn figures the translucent shroud cost about what he would have lost in pay if his crews had been laid off for three hours. He got the idea after experimenting with tarpaulins, which kept in heat but admitted no light.

(NEWS continued on p. 61)



JM SEAL-O-MATIC ASPHALT SHINGLES

withstood the TERRIFIC BLASTS of an aircraft engine!

New patented Seal-O-Matic® Asphalt Shingles are an exclusive Johns-Manville development. They have the beauty of traditional square-butt shingles, yet they are self-sealing to defy gale winds and rain

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GRACEFUL SITING OF OLD TOWN IS HOPED-FOR ALTERNATIVE

The growing battle for better planning, zoning

Critics step up complaints about how 'most' subdivisions look. Planners suggest new land-control schemes aimed at preserving the charm of unspoiled outer suburbs

Are homebuilders, having sown the postwar suburbs with much housing as casually sited as if it were planted by the wind, in danger of getting caught in a whirlwind of restrictive zoning and planning legislation?

The notion might have seemed far-fetched a few years back. Not any more. Signs are growing more and more plentiful that a battle may soon be joined in earnest between land-seeking promoters, on one hand, and planners and rural home owners on the other.

A situation in Connecticut illustrates the trend. A team of Yale University experts has just handed the town of Monroe a plan for retaining its rural charm despite a prospective surge of population that promises to transform it into a built-up suburb.

Old habits upset. If their recommendations are carried out, some of the building industry's well-entrenched patterns of housing and commercial development will be upset. "And high time," says many a planner. But the process could be painful in some quarters.

In brief, Yale's experts would clamp a lid on helter-skelter construction of homes, cluster them instead in relatively dense neighborhoods leaving plenty of woodland in between.

Such farsighted planning—the anticipated flood of new residents has barely begun in Monroe—is still the exception among communities facing a suburban future.

More than zoning. Behind the wave of sentiment for more control is a rapidly spreading awareness that zoning legislation alone is no surefire guarantee of comfortable living.

Perhaps it never was. But the number of persons who seemed to think so was legion. Now, the cry is on for full-bodied land-use planning. Wrote Planner Fred W. Tuemmler in *Urban Land* recently: "An integrated community instead of the individual lot has become the unit for planning. Yet in most places, the zoning regulations are not geared to this new concept of development. The zoning is still based on the single lot interpretation. Where zoning has not recognized the broadened concept, it has acted as an impediment to good community development."

Save the countryside. The scheme being offered to Monroe, Conn. is a fresh example of what Tuemmler had in mind. Conditions

in the test-case town are good for planning. Monroe—on the fringe of the Bridgeport metropolitan area in the Housatonic River valley—has a population of only 3,600. It is heavily wooded, has an abundant water supply and considerable land. The reason some of its citizens are warming to the idea of getting a plan into action is that the town is not what it used to be: a largely vacant rural community. Its population has doubled since 1940 and future growth—with Monroe being surrounded by industrial centers—may push the

population to 10,000 by 1970—a 200% jump.

Christopher Tunnard, director of Yale's graduate program in city planning, and four graduate students put together a plan which they think could make Monroe a "balanced" town, put a stop to hodgepodge location of new houses and retain the famous New England charm (see photos, above). Basically, the plan calls for three zoned areas tantamount to small villages (one of which would be for light industry), served by a new civic center and an intervillage shopping center. By such population channeling, more than 50% of the town's 16,900 acres would be preserved as farms and woodlands. The latter would be divided into two parts, either as state recreation areas or as town forests. Facilities for transportation of goods and persons would be kept to a minimum on the theory that simplicity is an "aesthetic and ethical ideal."

Counterattack. The Monroe plan may seem extreme to the big builder who wants to get his houses up and sold, using what land is available. Fifty per cent of 16,900 acres is a lot of woods. But public opinion is swinging hard toward such plans. In many areas the great

(continued from p. 65)

DOES EVERY CITY NEED ITS OWN 'LITTLE SIBERIA'?

One of zoning's basic dilemmas is how to reconcile a home-owner's desire to steer miles clear of glue factories and boiler works and still live close to his job. Real Estate Editor Grady Clay of the Louisville Courier-Journal—a former Nieman fellow and House & Home's Louisville correspondent—recently proposed a solution in the Sunday paper:

What we really need around here is our own little private, secluded Siberia.

Nothing too big, you understand. A couple of thousand acres ought to do. . . .

Now a special little Siberia is a useful thing. Getting to be a necessity. Every city needs one. Before long, all right-thinking citizens will recognize this, and wonder why we didn't get one years ago.

What for? Oh that.... For all those things nobody wants in his own backyard... airports, trap and skeet clubs, commercial fishing lakes, dumps, sandpits, quarries, heavy industries and anything that's lit up after dark.

This would positively, absolutely insure all residential neighborhoods against what are called 'inharmonious influences'. . . .

No Siberia is complete without a greenbelt. Let's make this one 2 mi. wide, surrounding Siberia. . . . The only trouble is—horrible though—no matter how obnoxious everything in Siberia may be, some folks will want to live in Siberia. . . . Every time a new airport or a factory gets built in the open countryside, people begin moving around it, getting closer to work.

And sooner or later they'll start complaining about the noise, stink and traffic caused by the airport, factory or whatever.

We'd take care of that, all right. Set up zoning restrictions against people. No people allowed in Siberia except during working hours. Positively.... A force of 395 fulltime inspectors would be required to stop "creeping populationism" or the surreptitious invasion of Siberia's greenbelt by people who insist—how silly they are—on living close to their jobs.

Tennessee builder saves Insulite's Shingle-



A. K. Stewart, Knoxville, Tenn. saves \$102 on homes like this with Insulite's Shingle-Backer System. As Mr. Stewart puts it, "Bildrite and Shingle-Backer go up fast...cut sheathing and under-coursing time almost in half and eliminate costly waste. This approved system gives me a better home, while it cuts costs." Following pictures show how.

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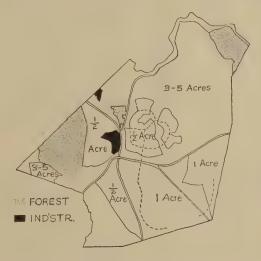
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FABROW MFG., INC. 7208 Douglas • Toledo, Ohio god subdivision is no longer revered. In some, it is up against calculated opposition.

"Suburban living is going to lose a lot of its appeal for one-time city dwellers unless some way is found . . . to avoid duplicating the mistakes in the physical layout of older cities," warns J. Ross McKeever in the January issue of Urban Land. "The growth of the suburbs has reached the point where some suburbs themselves are crowded. The congested traffic, the rows of lookalike houses on too narrow lots, the desecrating of all natural scenery, the general stereotyped development tend to give most new suburbs a city appearance and the residents a second taste of city life."

Eating up the farms. The fact that the town of Monroe is in an early (only threatening) state of overcrowding is brought out in a section of the Yale study by two of the students. Dieter Hammerschlag and Boris Pushkarev point out that land values there have not yet undergone the speculative rise that precedes bigtime suburban development. "All the more compelling need for planning now,"



Simplified map of what the Yale planners would do for Monroe, Conn. shows stretch of relatively high-density building (1/2-acre lots) down west side of river, near two industrial areas. Civic center and shopping area would be on south edge of center grouping. Most of 3-5 acre areas are farmland with some forest.

they argue. "If adequate open spaces and reservations are not set aside now, land speculation will make their creation impossible

Yet the Yale studies call Monroe "typical" of Connecticut: "a steady increase in farm acreage up to the depression, abandonded pasture and cropland taken over by brush, and since World War II an accelerated rate of urban growth . . . which is eating both into agricultural and woodlands."

And so it is that people like E. J. Tramposch, a member of the Monroe zoning board, are apprehensive about what may happen. "I'm in favor of anything that would keep Monroe's character," Tramposch said recently. "Trumbull, which is just south of here, used to be like Monroe. Now it's overcrowded and spoiled. It mustn't happen here."

Wanted: more open space. Recent evidences of battle between land-seekers and planners and rural home owners:

Santa Clara County, Calif., one of the richest farm areas in a rich farm state, was strug-

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(continued on p. 68)



SHOWN ABOVE-(left to right): Rough sawn hemlock board and batten; Tree Life Texture One-Eleven (4" groove spacing); PlyAloy Overlaid Sidin

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gling with its green belt recommendations from the planning commission, a severe drainage problem and a population increasing by between 3,000 and 4,000 persons a month. The planning commission, under pressure from farmers, considered the problem of the invasion of its orchards by builders nearly two years ago. Members drew up save-theland suggestions prohibiting building on about 40% of the county's cultivated area at that time. But these recommendations were never enacted into law by the board of supervisors. During the interim, builders have been able, as one of them phrased it, "to pretty well work out a pattern that is not objectionable." In other words, they are still building. So great is the pressure for homes, in fact, that an estimated 8,000 were under construction in the county last month.

- The Women's Planning League of Contra Costa County (on the other side of San Francisco Bay) decried the absence of school, civic center and park sites in Utah Construction Co.'s proposed 8,000 acre city for the Moraga Valley. "Those 'dream city' plans could very well develop into a nightmare village debacle for all the taxpayers in Contra Costa County," said Mrs. Mitchell Farrar.
- About the same time, in Fresno, the California chapter of the American Institute of Planners was receiving subcommittee reports blasting "the greater number of recent subdivisions" as "located carelessly . . . short on amenities, undistinguished in their architecture . . ." Recommendation: a "wholesale overhaul of current zoning practice" because current concepts tend to encourage "genuinely bad development."
- The zoning commissioners of Westport, Conn. (unlike Monroe, it is in range of New York City commuters) added another 2,000 acres to the town's 1,500 acres of minimum two-acre lots. Their aim: to bar low-price development from the breakup of Long Island Sound shore-front estates as well as broad areas of back-country hills.
- Washington, in fairly large-size lots to accommodate an expected 350,000 residents by 1980 met opposition from the county planning commission. Consultant Francis McHugh had proposed closely developed areas to pay for sewers and water and open areas for agriculture and conservation—with three-acre and five-acre minimum lot sizes in the last two categories. The commission proposed eliminating the three-acre and five-acre lot provisions and sticking to half-acre lots as the largest minimum requirement.
- ▶ Bucks County, Pa. was up against a burst of unrestricted building accompanied by hamburgers and gas stations. Observed Fritz Rarig of Rohm & Haas in Philadelphia, active in BOCA: "We could house millions of people in this county and not destroy it, if we did it right. But we are going to house 100,000 here and destroy it completely." Rarig was bothered by the number of small houses wedged up close to the state highways while the rolling "interior" went to waste. Without some sort of sensible development of this interior-to get the highway-bound settlers to spread out -Rarig saw "a choking process destroying the historic and architectural integrity of the Bucks County area."

(NEWS continued on p. 77)



\$20,000 HOUSES WITH DOWN PAYMENT ON AN AUTO OR \$400 CASH THROWN IN

BUILDERS AT WORK:

Free car in every garage?

JULIA TIL

A Pennsylvania builder offered home buyers a new inducement: down payment on a German Volkswagen, no strings attached, car delivered to the buyer's garage to be financed thereafter by him. If the buyer did not want the car, he got the down payment—about \$400—in cash.

Nicholas Sclufer of Newtown Square, Pa., who heads Taylor Builders and Jackson Builders, hatched the scheme with Hall & Crecraft, real estate, to step up sales of 72 big ranch houses (photo, above) near Valley Forge. They did not introduce the idea until almost all the homes were sold; five of the last ten customers took Volkswagens, five took cash. But R. G. Crecraft thinks the system is terrific as a sales pacer. "I wouldn't be surprised if you saw a lot of other builders going into this this spring," he said. "In fact, they might get as far as picking up the bill for the whole car and including it in the house like a washing machine."

Crecraft prices the ranch houses at a little under \$20,000—not bad for 1,850 sq. ft., exposed redwood beams, hot-water radiant heat. He said nonunion labor and "a good land deal" (the homes are about two miles from transportation) helped keep the price down. Next step for the team: four-bedroom split levels for \$20,000 in Gulp Mills, Pa.

House that 'Home' built

The combined efforts of several dozen people, including Arlene Francis, Architects A. Quincy Jones and Frederick Emmons, and NAHB, have produced a house for any climate that may be built this summer by 75 builders (estimate from Publicist Bob Loftus of NAHB).

Christened "The House That Home Built" because it was devised and is being touted by the management of NBC's televised morning "Home"

show, the three-bedroom house (which can be cut to two or expanded to four bedrooms) was designed by Jones and Emmons after joint persuasion from Builder Joseph Eichler of San Francisco and C. W. Smith, housing man on "Home."

Part of the televised promotion of the house last month was the appearance of Architect Jones and Dick Canavan, assistant director of NAHB's Research Institute, on one of the "Home" shows to talk about the model (see photo). Smith and Toastmistress Francis got them to explain that the roof overhang on the house could be shortened or lengthened depending on the house's location—the only concession, apparently, to the premise that the house will not have to be adapted to fit different climates.

"We recognize that regional design preferences exist," Smith said later, at lunch, "but we want to show people that steep roofs, small windows, and basements in the northeastern part of the country are due entirely to prejudice and habit and are entirely unnecessary technically as well as undesirable from a performance standpoint."

"We're going to be criticized that it's extreme," said Jones. "But it's not. Almost everything that's in here we've been doing for 10 years."

Two things that struck Jones as "different" in the house were 1) location of the laundry between bedrooms, and 2) the kitchen arrangement, which includes a solid dining table with two stove burners built into it and an oven at the end. (Jones has this in his own new, all-steel house and thinks it is fine.)

Mail received from some of the estimated $3\frac{1}{2}$ million housewives who watch "Home" each day varies from "A nice seaside shack" to "I can't wait till June to see it."

June 4 is open-to-the-public day for "The House That Home Built"—by which time those in charge hope that several dozen builders will have contracted to build it. Plans will be sent to builders who want to build one house for exhibit, at a fee dependent upon how many builders sign up. Smith figures it will be under \$200. Retail price of the house is called "moderate" by the program people, is estimated at between \$17,500 and \$20,000 (including land) if constructed in quantity.

Twelve builders who have asked for the house as a sort of kickoff move are Don Drummond, Kansas City; M. C. Bogue Jr., Denver; Irvin Blietz, Chicago; N. D. Woods, Oklahoma City; Haby Seay, San Antonio; Frank Tufaro, New York; Joseph Eichler, San Francisco; Edward Rose & Sons, Detroit; Willard A. Genrich, Buffalo; Martin Bartling, Knoxville; Pardee Phillips Construction Co., Los Angeles, and Zimmerman Homes, Inc., Milwaukee.

No-no down splurge in Miami

The Mackle Co. of Miami sharpened up design of their low-priced homes (see photo) and sold \$3 million worth (432 homes) the first day a new project opened.

This and the subsequent sales pace of nine sales

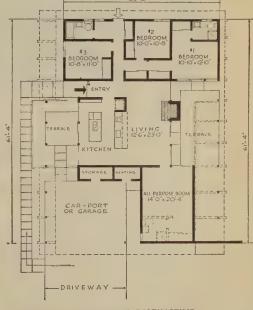


NEW MODEL BY THE MACKLES

a day was spurred by a no-no down deal for veterans. Four models are offered, varying from \$6,800 to \$8,300. (The three-bedroom Model C at \$8,300 is illustrated above.)

F & S eyes Chicago market

It was increasingly evident that the big builders were too big to stay in home territory. They needed nourishment. Latest move: F & S Construction Co., third biggest of the nation's homebuilders, which had previously concentrated its brick and concrete block houses in Salt Lake City, Washington, D.C., Phoenix and Denver, took another giant step and planned 2,000 homes on 613 acres outside Chicago. The model planned (continued on p. 80)



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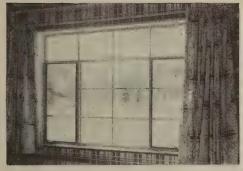
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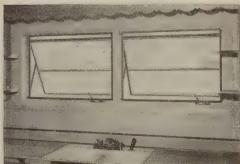
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Quincy, III. . . WGEM—TV
Roanoke, Va. . WHAM—TV
Roanoke, Va. . WSLS—TV
Rochester, Minn., KROC—TV
Sacramento, Calif., KCCC—TV
Salt Lake City, Utah . LIVT
San Antonio, Tex. WOAI—TV
San Diego, Calif. . KFSD—TV
San Francisco,
Calif. . . . KRON—TV
Schenectady, N.Y. . . WGB
Seattle, Wash . KOMO—TV
Springfield, III. WICS
Springfield, III. WICS
Springfield, Mass. WWLP—TV

Springfield, Mo. . . . KYTV
St. Louis, Mo. . . . KSD—TV
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Minn. KSTP—TV

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Minn. KSTP — TV
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Temple-Waco,
Tex. KCEN — TV
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Utica, N.Y. WKTV
Washington, D.C. WRC — TV
Waterloo, lowa KWWL
Wheeling, W.Ya., WTRF — TV
Wichita, Kan. KEDD — TV
Wichita Falls,
Texas KFDX — TV
Wilker-Barre, Pa., WBRE — TV
Wilker-Barre, Pa., WBRE — TV
Wilmington, Del., WDEL — TV
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N. C. WSJS — TV
Youngstown, O. WFMJ — TV

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Conforms Fully to FHA-VA Requirements!



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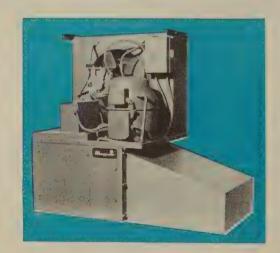
- Within Reach of Every Buyer. Adds so little to down and monthly payments that fit any budget. Low first cost—low operating cost too!
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Write for Spec Sheets and Nearest Jobber, to:



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A Great Name in Heating and Air Conditioning
MUNCIE, INDIANA

N

(continued from p. 77)

would be one of the company's standbys: a brick three-bedroomer with two baths for \$15,000. F & S would first have to get some rezoning done, though. About 185 residents of Schaumberg Township protested that the new homes would hurt their rural atmosphere and raise taxes. Jack Hoffman, F & S executive secretary, said the company would put up at least 70 classrooms.

Tempo deal in Detroit

Plans were afoot for private developers to take over the 1,650-acre Willow Run Village, one of the largest temporary defense housing projects in the nation, and shape it into a self-sufficient community of 20,000 persons. Some 11,000 persons still live there, in 3,000 units, but under terms of the federal government's sale of the village to Ypsilanti Township last fall must move out by July, 1958.

Prefab for '55

Virginia Lee Homes, Inc. of Seattle, in business since 1929, is having success with a four-bedroom, two-bath prefab (see below) which sells in the neighborhood of \$14,500. It was one of the houses

Chas. R. Pearson



NEW PREFAB BY SEATTLE COMPANY

in Seattle's big Parade of Homes last year, is being marketed throughout the Northwest now. Builder John Hill of Bellevue has sold the first five he built and is at work on a sixth. Designer: E. E. Dofsen.

Builder boosts bus line

Should a builder subsidize bus service to his projects? Big Builder Henry Doelger, entrepreneur of San Francisco's suburban Westlake project (March issue, News), agreed to absorb losses on San Francisco's No. 76 line to the tune of \$600 a month for two months. The line, which serves Doelger's clustered project, had been scheduled for abandonment by a utilities commission decision calling for cessation of out-of-county service when it involved a San Francisco tax subsidy. By April 1 Doelger hoped to be able to work out arrangements with Daly City officials and the municipal bus line to keep the buses running and give his home owners a chance to get into town.

Doelger had ordered up a slightly flashier means of transportation for himself. He was having a 120' yacht built for him in Germany (a bargain basement mart for fine boats) and was about to fly over and check on progress.

Growth of Lu-Re-Co

Between 1,000 and 1,500 Lu-Re-Co panelized houses went up during the last ninc months of 1954.

The spread of the system, devised to help lumber dealers compete with prefabbers at precutting and preassembly (March '54 issue), was checked recently by Raymond H. Harrell of the Lumber Dealers Research Council (he was formerly with the University of Illinois Small Homes Council

(continued on p. 84)

, © 1955

in our homes customer acceptance"

For specification data on Andersen Flexivents see your millwork dealer, Sweet's Light Construction File, or write direct to Andersen Corporation. WINDOWALLS are sold by established millwork dealers throughout the United States including the Pacific Coast.





Ease of assembly is evident as workmen at the Spande 50-home Westwood Gardens project assemble 6-sash Flexivent group on the site. Units come completely packaged ready for assembly.



Ease of installation is shown here as men work 6-sash Flexivent group quickly into place in window opening. Groups might just as easily be assembled in shop and trucked to site.

**TRADEMARK OF ANDERSEN CORPORATION*

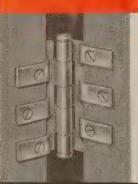


ANDERSEN CORPORATION . BAYPORT, MINNESOTA



The New McKINNEY NON-MORTISE HINGE

the logical, practical and proved non-mortise hinge to use in modern home construction. Makes door hanging speedier and more economical—and gives complete satisfaction.



8 BIG QUALITY FEATURES:

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Available in the popular $3 \frac{1}{2}$ size...choice of three finishes: dull brass plated, bright nickel plated, and bonderized prime coated.

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· SAVE MONEY

. HANG DOORS 3 TIMES FASTER

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McKINNEY
ROUND CORNER BUTTS

... Order these McKinney Hinges from your building supply or builders thardware distributor today.



MCKINNEY

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Prasourga 33, Femnsywania

which helped develop the plan). Replies indicated 460 lumber dealers in 45 states and three Canadian provinces had bought Lu-Re-Co kits.

The 460 builders built an average $2\frac{1}{2}$ houses apiece. About 40% of houses sold were modifications of the designs furnished (showing the flexibility of the patterns) and 75% were priced in the \$10,500-\$12,500 range. Most popular design was a 24' x 40' three-bedroom model. Some 50% were sold with conventional financing, 30% with FHA and 20% with VA.

Three-fourths of the lumber dealers were able to handle the additional business without adding to their staffs (yard personnel and others built the panels in their spare time, in most cases) and only 5% said they did site construction. Harrell expects that the number of dealers using the panels will double by the end of this year (the Small Homes Council has developed eight new designs, incidentally) and hopes that total houses built will swell to 10,000.

Modern for St. Louis

The Contemporary Development Co. of St. Louis, has set out to do the same sort of thing that Architect Fran Schroeder is doing in Indianapolis and that Jack Schuldes and Bill Wenzler are doing in Milwaukee: give contemporary design a break.

The St. Louis company (officers: James R. Londoff, George Londoff and Mrs. Robert Disch III) plans 70 houses, each placed on a half-acre lot with at least 80' between houses. The first six



NEW HILLSIDE HOME

homes completed have been sold and three more are now under construction.

Designer Russell Hughes has done three plans. Best seller so far is the second lowest priced home in the group (\$18,950), with three bedrooms and a 12' stone fireplace. The partners themselves think that dollar-for-dollar it is the best buy on their list. They also offer a hillside house for \$24,950 (see photo, above), the top level of which is a reasonable facsimile of their best seller, with basement added to fit terrain.

Eyes on Tyler, Tex.

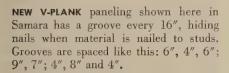
Tyler, Tex. (pop. 50,000) will acquire two notable corporations in the next 18 months.

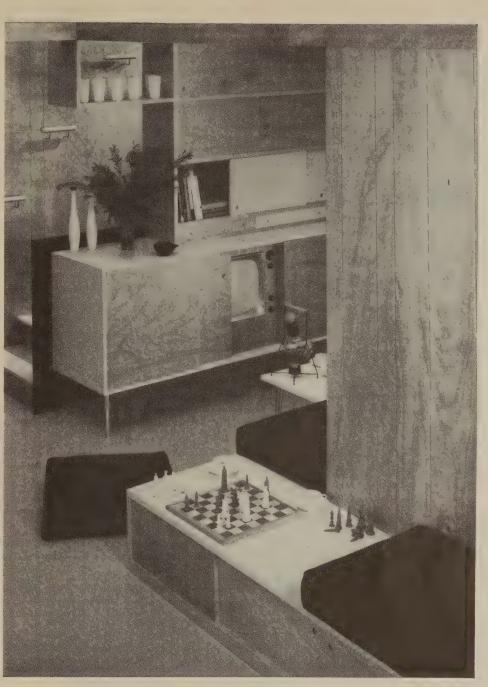
National Homes and General Electric have chosen the east Texas county seat for new plants. Seeking fine weather and a big Southwest outlet, National Homes will put up a \$1-million factory to produce 75 units a day, starting in the fall of '55. The expansion will bring National's total output to 275 units a day—the Lafayette, Ind. and Horseheads, N. Y. plants now turn out 150 and 50 units a day, respectively. All in all, a boost for President James Price's estimate of 30,000 units to be produced this year.

General Electric, choosing an area where it expects great growth in the air-conditioning market, will put up a \$15-million plant for the manufacture of home cooling units. Completion date: fall of '56. It will be the third GE plant devoted exclusively to home cooling equipment (Trenton,

(continued on p. 88)







with no on-the-job finishing!

story pre-finishing. Available in Walnut, Korina, Samara, onduras Mahogany and Oak, and in 32" width as well 48".

eldwood Planktex*. 4' x 8' x 5/16" panels have 6-inch de bands of irregular striations alternating with 6-inch ands of smooth wood. Striations hide butted panel joints. Indee of low-cost Philippine Mahogany, Planktex comes the pre-finished or unfinished.

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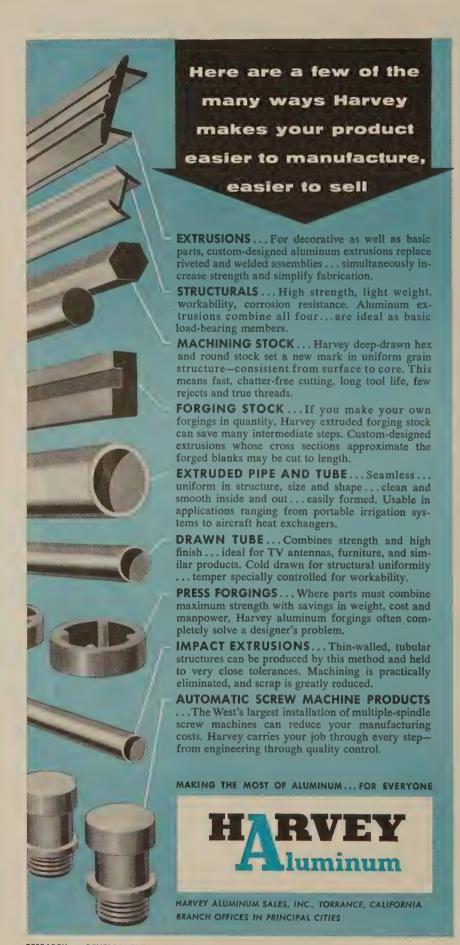
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NEWS

(continued from p. 84)

N. J. and Bridgeport, Conn. have the other two). The company's sale of central home cooling equipment has increased ten times in the past two years, according to Department Manager S. J. Levine.

ACTION on TV

First of a series of programs to teach home owners how to improve blighted property was telecast in Salt Lake City recently from KDYL (owned by TIME, INC.) with three architects participating. Purpose of the Sunday programs will be to offer the viewer professional advice as well as workable plans along the lines sought by the new American Council to Improve Our Neighborhoods (Nov. issue, News). How to make the most of landscaping and house-on-lot placement are among future programs planned. The first panel included Architects Wesley Budd, A. T. Carpenter and W. Roe Smith.

Bill Wood Photo Co.



TOP WINNER: CARPORT BY ALUMA KRAFT

Prize winners announced in metal awning contest

In an attempt to improve the design of metal awnings, the National Metal Awning Assn. last fall asked its members to submit pictures of their most successful installations to a jury selected by the editors of House & Home. The jury: Mary Hamman, modern living editor of Life; Henry N. Wright, well-known designer and design consultant; Suzanne Gleaves, managing editor of House & Home.

From hundreds of submissions in three categories—commercial, residential and semi-independent structures—the jury selected three installations for a "distinguished award," chose the carport (above) for the grand prize, awarded seven lesser prizes. The top winners: Childers Manufacturing Co. of Houston, Tex.; Central N.Y. Insulating Co., Syracuse, N.Y.; Aluma Kraft Distributing Co., Fort Worth Tex.

Said the jurors: "Awnings have a definite place in modern architecture . . . [but] the awning industry has a long way to go in terms of design. . . ."



COMMERCIAL WINNER: BY CHILDERS MFG.



RESIDENTIAL PRIZE: CENTRAL NY INSULATING

for originality in building...

another

SCHLAGE

MASTERPIECE

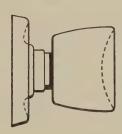


TULIP design

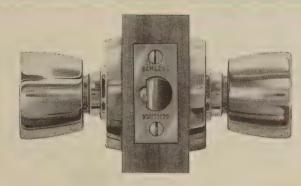
In recognition of today's emphasis on building quality and distinctive design,
Schlage offers the new Tulip lock. Its unusually handsome lines feature a concave
face and generous hand-pleasing grip. The Tulip is so designed to give doors
greater originality, buildings greater sales appeal. Now available for
both residential and commercial installations in wrought brass, bronze or aluminum
with all standard finishes and lock functions.

The Tulip lock is one of 5 new designs recently introduced by Schlage as further evidence of their modern lock leadership. These new additions now make possible an even wider selection of fine Schlage lock designs in many beautiful finishes to suit every building requirement.

Tulip
Adds Distinction
to Residential and
Commercial Doors



The Tulip design lends a luxurious touch to all buildings...reflecting quality wherever it is installed. Combined with Schlage escutcheons or as a design by itself, it is an appealing asset for door decor.



As a lock mechanism, the Tulip offers a supreme standard of operating ease and locking efficiency. For with Schlage's name on the latchplate, you assure your customers quality and security for the life of the door.

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This new folder suggests many refreshing ways to feature door decor...incorporating Schlage's 5 striking new designs.

Fully illustrated with complete specifications.

Write to Schlage Lock Company, 2201 Bayshore Boulevard, San Francisco, California



SCHLAGE LOCK COMPANY • SAN FRANCISCO • NEW YORK • VANCOUYER, B.C. Address all correspondence to Schlage Lock Company, San Francisco



Builder Cuts Costs with Skake-a-Ply CEDAR SIDING



Hulen H. Hunt, builder of beautiful Brentwood Village in Corpus Christi, Texas, says: "I use Shake-a-Ply because it saves time, is easily applied and thereby cuts my labor costs. Shake-a-Ply looks better than ordinary shakes. Prospective home buyers are interested in the construction materials we use and are especially pleased with Shake-a-Ply siding. I find Shake-a-Ply very easy to store and to handle. The bundles cut down on the amount of damaged pieces. Its clean-finish look and deep shadow line help my sales."

builders, uses Shake-a-Ply because the installed cost is less than any other kind of wood siding. The easy-to-handle panels (8 feet by nominal 18 inches) reduce the cost of labor on the job by as much as two-thirds. Shake-a-Ply can be installed over any type of sheathing or over old siding to give a home that modern look, with wide exposure and few horizontal lines. Paint or stain finish will not peel off or blister. Fewer nail heads exposed, no gaps between shakes. Three-ply construction combines Cedar's durability with plywood's rugged strength. Panels may be sawed easily in any direction for installing around openings. No special nailing strips or backing are necessary. Joints are made over studs and ends butted. Efficient, patented process produces panels of uniform dimension, with all edges square and true.

Hulen Hunt, like many other progressive

Shake-a-Ply is a rugged, durable, textured cedar siding made by combining No. 1 clear machine-grooved shakes with cedar shingle undercoursing, with a resin coated veneer core as a cross-bind. The resin used is a phenolic complying with Commercial Standard 45-48 (Boil Test). Panels are 8 feet long by approximately 18 inches wide. Shake-a-ply is manufactured only in Natural color and may be painted or stained with equally good results.



EVENTS

Color Awards Competition, sponsored by House & Garden in cooperation with NAHB. Basis is use of House & Garden colors on exterior of individual homes and residential developments built in 1955. Entry deadline: April 15. For details write Arnold C. Shoop, House & Garden, 420 Lexington Ave., New York 17.

Indianapolis Home Show, April 15-24, cattle building at the fair grounds, Indianapolis.

1955 Builders Show, April 15-24, State Fair Grounds, Detroit.

Building Officials Conference of America, 40th annual conference, April 17-21, Milwaukee.

Building Research Institute, annual meeting, April 18-19, Woodrow Wilson Hall, Princeton University, Princeton, N.J.

Savings Banks Assn. of New York, midyear meeting, April 27, Hotel Biltmore, New York.

National Assn. of Housing and Redevelopment Officials, Middle Atlantic conference, April 28-29, Hotel New Yorker, New York.

American Institute of Architects, Western mountain regional conference, April 28-30, Camelback Inn. Phoenix.

Mortgage Bankers Assn., Eastern mortgage conference, May 2-3, Hotel Commodore, New York, 42nd annual convention, Oct. 31-Nov. 3, Hotels Statler and Biltmore, Los Angeles.

NAHB, spring directors meeting, May 15-17, Washington, D.C.; fall directors meeting, Sept. 23-26, Denver.

National Assn. of Mutual Savings Banks, annual convention, May 16-18, Chalfonte-Haddon Hall, Atlantic City, N.J.

United States Conference of Mayors, annual conference, May 19-21, Waldorf-Astoria, New York.

National Savings & Loan League, 12th anniversary convention, May 22-26, Cleveland Hotel, Cleveland.

American Institute of Banking, annual convention, May 30-June 3, McAllister Hotel, Miami.

National Housing Conference, 24th annual meeting, June 8-10, Hotel Statler, Washington, D.C.

1955 Los Angeles Home Show, June 9-19, Pan Pacific Auditorium, Los Angeles. Sponsored by 14 construction industry associations and the Chamber of Commerce.

Forest Products Research Society, annual meeting, June 20-23, Seattle.

American Institute of Architects, annual convention, June 21-24, Hotel Radisson, Minneapolis.

4th Congress of International Union of Architects, July 11-16, The Hague-Scheveningen, The Netherlands. Pertinent information can be obtained from AIA headquarters, Washington, D.C.

house & home

April, 1955

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At Barrington, III. USG builds six regional houses by Architects Hugh Stubbins (p. 108), A. Quincy Jones (p. 112), Harris Armstrong, C. H. Coddington, O'Neil Ford, Francis D. Lethbridge; Builders H. L. Frank, J. L. Eichler, D. H. Drummond, W. A. Simms, Frank Roben & Son, and Eli Luria.

116 FRANK LLOYD WRIGHT'S DOUBLE-DECKER FLAT TOP

Design demonstrates how a clerestory lights the center of the house flat roof allows plan freedom, overhangs frame view in lowa house.

122 FLLW'S FLAT-TOP IDEA ADAPTED BY UTAH BUILDERS

Daley & Prows of Salt Lake City offer a 1,740 sq. ft. quality house for \$23,000. Two-level plan uses clerestory, skylights and trellis cutouts.

126 ROUND TABLE REPORT

Panel of experts agrees that standard parts, dimensioned to fit offer No. 1 hope of lower building costs. Six subsequent Round Tables are scheduled to seek agreement on dimensional standards for components.

130 TEN WAYS TO BUILD BETTER FOR LESS

Second in a series of articles presenting new building techniques designed to cut costs and improve the final product—the house.

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A study of the problems and potentials of this market and a report on progress the homebuilding industry is making in coping with this assignment.

152 NEW SPLIT LEVEL HOUSE & HOME HELPED DESIGN

Architect George Hay develops a \$17,500 house for an Arters Bros. project at Middletown, Pa. avoiding the pitfalls of much split-level design as analyzed by H&H.

156 SHOULD GLASS WALLS FACE THE STREET?

In three \$36,000 houses in Memphis, Architect James H. Perrell and Builder Chatham Hunter solve this common problem adroitly.

158 WHAT WET HEAT IS DOING TO MEET WARM AIR COMPETITION

Engineering improvements reduce boiler, convector and pipe sizes, raise accuracy of heat-loss calculations; add cooling and snow melting.

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Equipment for wet heat and other new developments.

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Research Village: architects, team up

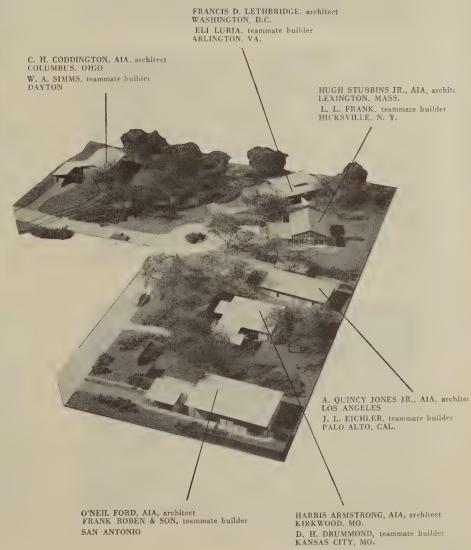


builders with industry

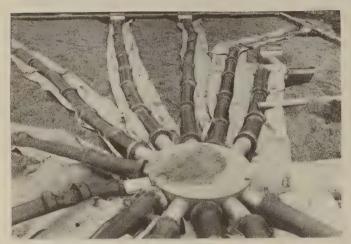
From teamwork, new technology

Working hand in hand, architects, builders and a manufacturer of 900 products have built six different homes. The result: materials and techniques never before used in builders' houses. Producers constantly face an old problem: they don't know what architects and builders will do with their products. US Gypsum faced up to the problem, commissioned an architect from each part of the country to design a low-cost house suitable to his climate. The architect was constantly guided through the design stage by a local builder. Although not specifically asked to, many used USG products, some in fascinating new ways.

Millions of people will read about the USG Research Village at Barrington, Ill. in consumer magazines this month. So these six houses will influence their homebuying ideas. The next ten pages tell the building industry about the new ideas, and cover two of the houses in detail.



New ideas showed up in every house



Decentralized forced-air furnace ducts



One hundred tons being lifted hydraulically



Welding replaces nails



Rigid insulation, built-up roof, top decking

Baseboard duct heating system

Tucked into an exterior closet in Harris Armstrong house is a forced-air furnace that blows into a central drum-shaped plenum. The heated air is conducted through 6" glazed sewer tile to registers located under large glass areas in exterior walls. A portion of the heated air is exhausted into the room through the registers, the remainder travels horizontally behind a low baseboard that connects the registers around the outside perimeter of the house. The heat drifts gently into the room through a continuous airspace between baseboard and wall.

Lift slab for domestic architecture

Lift slab roof (one of the few residential lift slabs) in O'Neil Ford house was poured on floor slab, raised hydraulically to top of six steel columns. Metal collars welded to the columns hold the slab in place.

Currently used in commercial building, its newness in residential works helps make it expensive, although proponents are convinced the lift slab can be erected for \$1.25 per square foot in production. Exterior walls and interior partitions in this house are nonbearing.

Steel joists are exposed

Exposed open truss steel joists in A. Quincy Jones house are fireproof, don't warp, cost 1½ times more than wood joists of similar strength.

Builders were especially interested in the use of open web beams for framing under first floors, since ceiling height in basement could be reduced by running pipes and conduit through open webs. Savings from fewer basement walls would more than offset extra cost of steel framing, they felt.

Metal decking makes low-upkeep ceiling

Metal decking was used in A. Quincy Jones house for roof decking and for garden walls. It is rapidly placed, spans 8'-6" or cantilevers 3'-11" in 20-ga., which costs approximately 28ϕ per square foot

Decking can be applied over timber or steel framing, with rib turned up or down. Perpendicular to ridge, one sheet will reach to eaves, will not warp or swell. Exposed surfaces are painted, require little maintenance. Photos: Hedrich-Blessing, courtesy USG Research Village



Cost of planks: about 40¢ per square foot



Steel and gypsum spell fireproof



Core fits into joist . . . is faced with wall board



Bead is quickly applied

Gypsum planks don't mind water

2" metal-edged gypsum plank forms both roof deck and subfloor in the Coddington house. Planks span 5' between lightweight steel beams, are fireproof (already used in class "A" construction), are not seriously affected by weather before house is closed in.

Floor planks were brushed with waterproofing, then covered with a 3/4" topping of concrete, smoothed to take tile. Undersides of planks are left exposed, require only paint.

Steel studs and steel clips

Metal stud manufacturer claims their in-place cost is comparable to wood studs, provided they are precut to length in the factory. Obvious advantages of open-web stud are: (a) they are fireproof, (b) they offer no obstruction to wires, pipes, ducts, etc., running through the wall.

Lath for wet wall is easily clipped to the metal studs. USG plans a similar device for dry-wall installations. These studs, for nonload-bearing walls, were used in Jones house.

At last: a 2" solid partition

2" solid partitions are features of Lethbridge house. The interior walls are nonload bearing, have no studs; used instead is a three-ply gypsum board partition that is fireproof and rigid.

Core of wall is $1\frac{1}{4}$ " mill-laminated gypsum board. This core is faced on the job with $\frac{3}{8}$ " dry-wall panels, is taped and then painted.

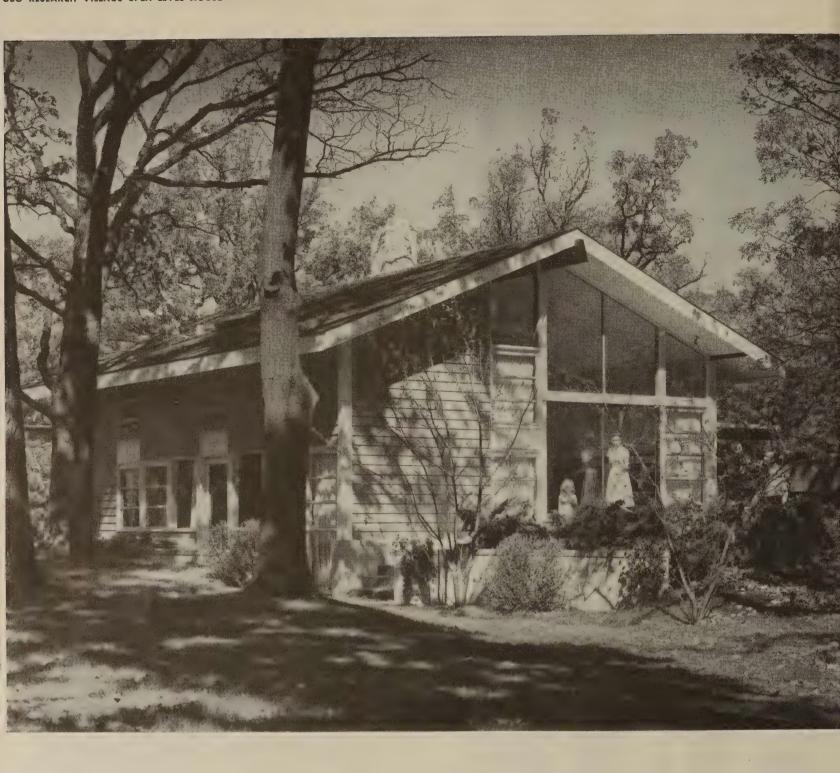
Core is easily cut to admit conduit and electric boxes. Total square foot cost of wall: about 75ϕ .

Metal bead eliminates dry-wall taping

Metal bead was used in Hugh Stubbins house to mark dry-wall joints. T-shaped bead is nailed to stud behind gypsum board; board is then butted against it and decorated.

While tidy appearance seems to be the chief advantage, it makes poor workmanship at joints practically impossible, offers some protection to the wall board. Metal beading, specially made for this house, projects about ½" from face of wall.

continued on next page



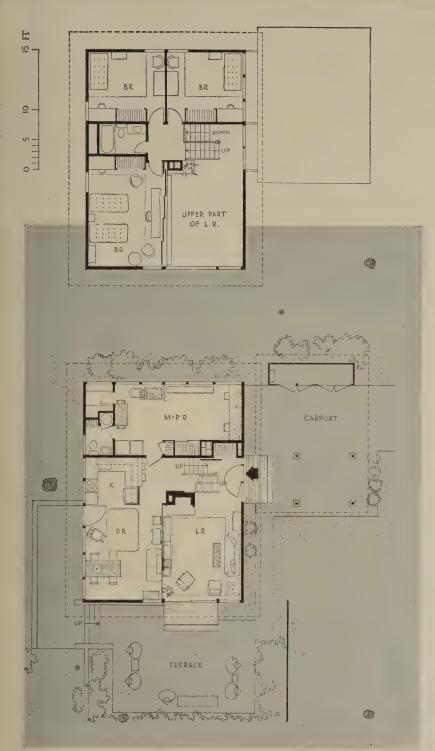
A good lesson in split-level

Few house types are harder to handle than the split level.

To the credit of this one are the skillfully handled plan and elevations, and a carefully thought-out interior. Here are the distinguishing features:

- 1. Each level does a zoning job. Noisy activities can be restricted to the lowest level, everyday living to the next, sleep and quiet to the top level.
- 2. The rooms are large and comfortable. Some open into other rooms, all are well proportioned and have adequate windows.
- 3. The house is flexible. With minor changes it can be used on any sort of sloping ground, or on flat land. It can be made larger with little trouble.
- **4.** It looks well. Its lines are simple and clear-cut; there are no unsightly mounds of earth called for.

HUGH STUBBINS JR., architect L. L. FRANK, teammate builder MAXON CONSTRUCTION CO., Research Village builder for USG



Photos: Hedrich-Blessing, courtesy USG Research Village



Garden wall (left) shields patio from street.

Trim plan shows roomy lower level (space was purposely taken from the living room). Crawl space under living room houses a horizontal furnace, would easily hold airconditioning equipment. Fireplace does double duty because it screens entrance to bathroom which is often exposed in split-level houses. Bedrooms are well planned, require only a landing for circulation. Hall space in house is almost nonexistent.

plan and appearance



Large patio provides pleasant outdoor living, might have been located at side or opposite end of house, closer to kitchen. Although house can be oriented in many directions, the large uncurtained gable end would probably not face comfortably towards the west.

continued on next page

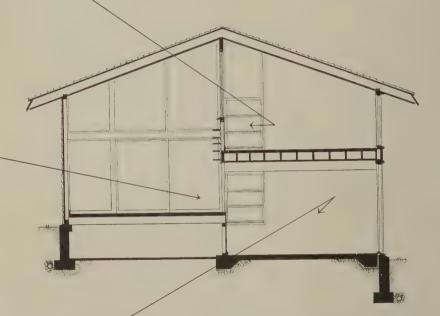
Sliding, multicolored panels open master bedroom to living room and view through gable end window.

An open plan and simple details



Worm's-eye view of living room might trouble diners





1,614 sq. ft. of floor space are packed into 936 sq. ft. of ground area. Bedroom wall height of 5'-5" at outside walls seemed not to bother anybody. Alternate schemes included one with the living room on the same level as the dining room, with four bedrooms above. Another had two baths on the upper level. Lower level has perforated tile on ceiling to muffle footfalls above, improve acoustics generally. Note minimum use of footings, taking advantage of sloping ground.

Impressive living room is actually only 12' x 14'. Ceiling rises to 12', is 8' at wall side. Some families thought low opening to dining room (behind TV set in photo) would be a pitfall for children, others were not concerned. Despite minor quibbles, almost everyone liked the spruce and spacious feeling of this house.

For Research Village steel frame house, turn the page





Steel predominates in the entrance area. Roof decking turns vertically for garden wall; open web beams are supported by steel T posts. Entire roof weighs only $1\frac{1}{2}$ tons, requires little maintenance.

Steel vs. wood: how much change

The unique uses of steel in the Quincy Jones house left many visitors startled.

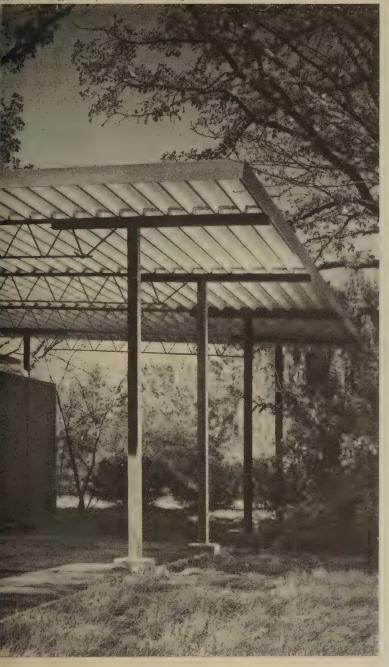
Some people had seen it used like this in factories; others in schools. But few of them had seen it used in a house. Some people were delighted with the light tracery of the construction, others were disturbed by the unfamiliarity.

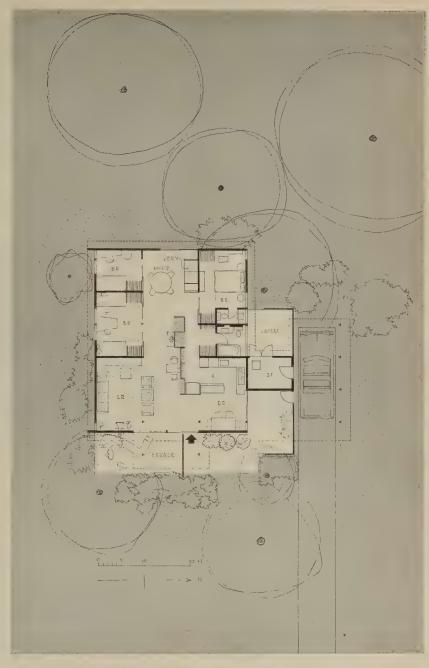
But builders saw something else; an experiment full of new ideas, some of them suitable for immediate use.

The house is fireproof and quickly put up. It resists termites and requires little maintenance. And it should last a long time.

The cost interested builders most. USG claimed that in production the house could be reproduced for less than conventional frame methods.

A. QUINCY JONES, architect J. L. EICHLER, teammate builder MAXON CONSTRUCTION CO., Research Village builder for USG Hedrich-Blessing, courtesy USG Research Village





Open plan allows bedrooms little privacy. All-purpose room is usual center hall, made broader. The interior is very flexible, as the partitions and storage wall are nonload bearing. (Laundry location has been questioned since it requires noiseless equipment, extra plumbing.)

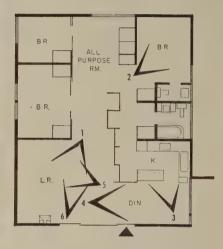
will people take?

continued on next page

Plaster panels (shown below at living-room corner) are divided by metal expansion joints







Acoustics are improved by corrugations in ceiling. Some consumers thought dust, cobwebs, would be problem with open-web beams.

Exposed materials create

Photos: Hedrich-Blessing, courtesy USG Research Village



High windows in bedrooms provide diffused light with complete privacy, are low enough to allow owners to see out. Proximity of bedrooms to laundry and all-purpose room bothered some visitors.



Mechanical core includes neat kitchen, full and half-bath beyond. Boiler (for radiant heat) and electric service panel are in enclosed storage room outside of kitchen.



Roof cantilevers over gable end are supported by interior steel T columns, shown here in dining area. Steel purlins exist only in front half of house.



Design is on a 7' module, determined by the allowable span of the 20-ga. roof decking. Since the roof is carried on steel T's on the modules, all walls, interior and exterior, are nonload bearing, allowing architect to place windows freely. Earlier scheme had flat roof (more suitable to materials and technique used), which would probably look even better.

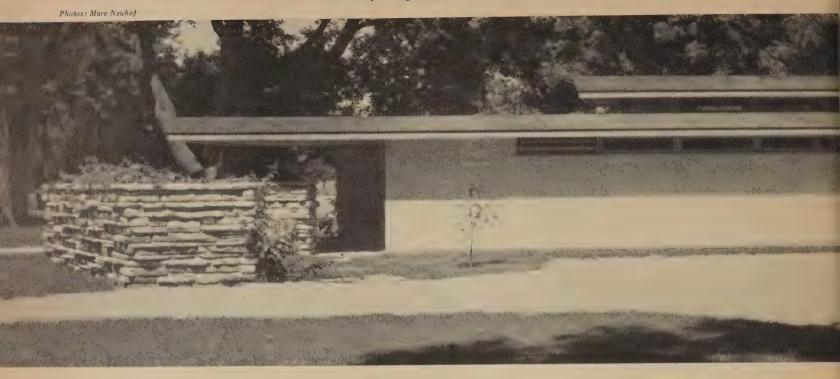
Lively interior view illustrates open feeling of house. The ceiling lamps were specially made. Free-standing storage wall at right is important feature of design. It holds, in various sections, the refrigerator, pots and pans, linen, and coats, could be moved to form entirely new room arrangement.

striking interior

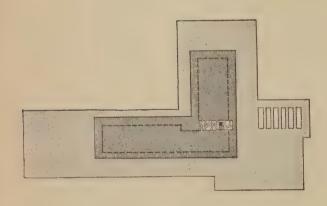


Furnishings and interior colors (in each house) were selected by a well-known decorator working with the architect. Houses are unoccupied, will be sold later in year.



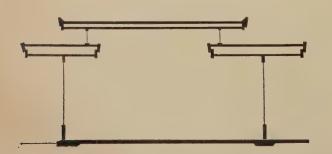


FLLW's characteristic double-decker flat top:



Plan of double-decker roof (above) shows how flat top shelters the irregular plan outlines of house. Note how easy it is to provide deep overhangs.

Trellises, clerestory skylights appear where most useful. Section through living room (below) shows characteristic Usonian clerestory protected by deep overhangs that cut out sky glare.



Why do so many architects like a flat roof? When does it make sense? How can it be made to look handsome?

Nobody is better qualified to answer these questions than Frank Lloyd Wright, and nowhere has he given a more convincing set of answers than in this stunning new house in Iowa.

Here are his answers to some common flat-roof questions:

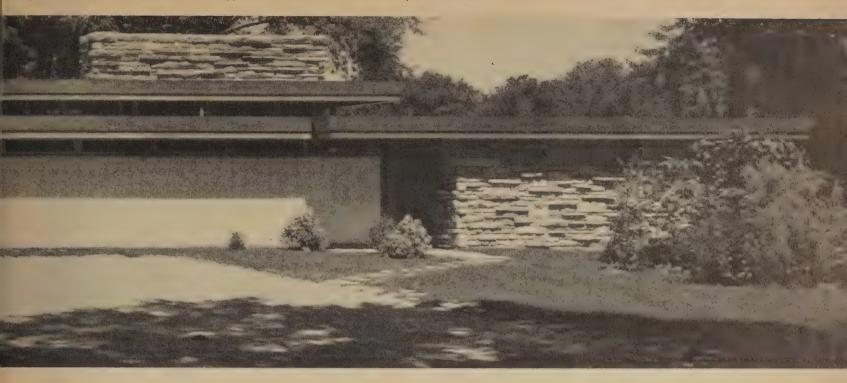
What is so good about a flat roof? Answer: flexibility (and, hence, economy) to start with. A flat roof can be spread gracefully to shelter any plan, regular or irregular. In other words, you may plan your house with the greatest possible freedom.

Moreover, a flat roof may use the cantilever principle for outside shelter, trellis-cutouts, wide overhangs wherever necessary and without extravagant cost. This house, with its ingenious roof, has clerestory Lantern-lights (see section), trellises and overhangs as much as 18' deep. In fact, Mr. Wright does things with this flat top that would fracture the "spine" of any conventional roof and does not exaggerate anything except comfort.

Is a flat roof cheaper? Answer: Mr. Wright says it is. What he means is that a flat roof is cheaper when used to advantage.

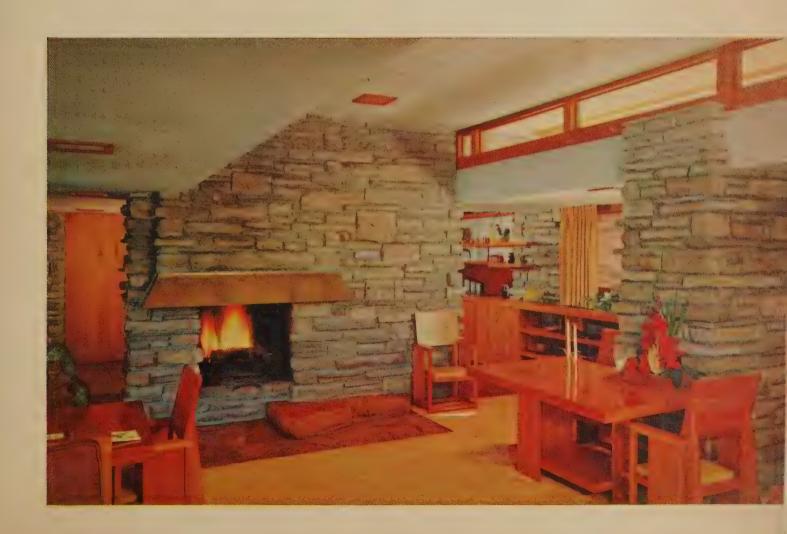
Why does this flat roof look so handsome? Answer: because of its well-proportioned overhangs and extended fascias. Unless you know exactly what you are doing, beware of thin-edged, flimsy overhangs, of flat roofs without overhangs, and especially of flat roofs with neither overhangs nor fascias. Any of these can be handsome, are only boxes when not handled by an expert.

longer than they are. Upper-level roof appears to float on a continuous strip of windows.



its long lines give it great repose...

... and the clerestory lights the center of the house









Deep overhangs frame the view...
...marry the house to the ground,
and protect walls and inhabitants



Double-decker ceilings dramatize interior spaces:



High ceilings for main spaces

Low ceilings over intimate corners

Frank Lloyd Wright's double-decker roof gives you a double-decker space consciousness, and the double-decker ceiling in turn gives you some highly effective changes in the interior:

- It gives you low, door-height spaces where you want intimacy—as in a recessed seating area.
- It gives you higher ceilings where you want more formality and cross ventilation.
- It gives you plenty of light (without glare) in the center of your house—where natural light is at a premium or necessarily absent. It lets in sunlight when the main views are to the north as in the center of the living room.
- And it gives you a low--slung "eyebrow" above all windows and glass walls—which relates well with the horizontal planes of the building and landscape visible above the house.

Frank Lloyd Wright has always used the diversified flat ceiling as a tool with which to mold space. He has done it to perfection here.

Note: This house for a dentist was built as the first unit in a connected, three-unit development. The other two units will be a small dental clinic and a house for the son, who is also a dentist.



LOCATION: Salt Lake City, Utah
DALEY AND PROWS, builder
RICHARD PROWS, designer
CLARK LEAMING, decorator
FINANCING: Prudential Savings and Loan Assn.

TERMS: standard FHA, 20% down

for details of how Frank Lloyd Wright uses the double-decker roof, see pp. 116-121

Photo: Marc Neuhof



FLLW's double-decker flat-top idea



Lava block with insulating pumice fill is used for walls. Entrance from carport and driveway is flanked by double row of plantings. Carport is painted deep green inside.

Many builders who don't use flat roofs just don't know what they are missing.

Builders George Daley and Richard Prows have been building flat-top houses in Salt Lake City since they teamed up three years ago. The more they build, the more they like the system. When they started out, flat roofs were "controversial" in Salt Lake City, to put it mildly. Now the public buys them readily.

Using principles characteristic of Frank Lloyd Wright (see pp. 116-121), this building team has found that with flat roofs:

- ▶ you can shelter any plan—even a two-level plan;
- you can have wide overhangs wherever useful;
- you can have trellis cutouts;
- you can have clerestories and, if needed, dome skylights.
- ▶ You can have all these with no loss of good appearance, provided you handle overhangs and fascias right. When you have deep overhangs and broad fascias—as in this house—the resulting flat top is more likely than not to be unusually handsome. Which is what Mr. Wright has demonstrated many times.

Furthermore, it can be a cheaper house. This new double-decker with 1,740 sq. ft. of living space and 3,400 sq. ft. of covered area sold for \$23,000 including lot, landscaping, built-in oven and range. That figures out pretty low cost for a house that won an NAHB merit award for design last January.



was adapted in Utah builder house

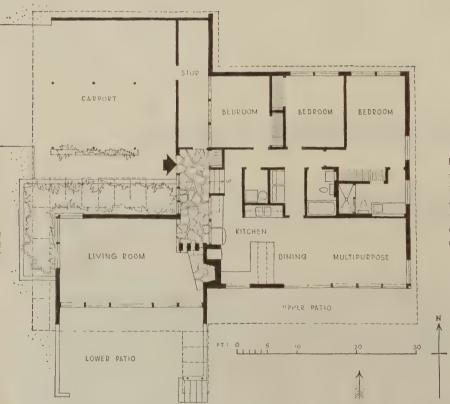


Patios are double-decked, too. Nearest to camera is patio off kitchendining and multipurpose area. Beyond and below (at the left) is another patio off living-room wing of house.

Plan keeps through traffic out of all these rooms



Clerestory gives front bedroom daylight. Bedrooms are all located far from centers of noise and activity.



Fascinating solution by Designer Prows places new living-room wing in front of the regular square with central mechanical core. The usual living area becomes an adjunct of the kitchen. In this plan, carport and entrance are both close to the living room and kitchen. Thus under the two tiers of flat roofs, all zones—living, work-play, bedrooms—are properly orientated to each other. No traffic from one area to another clogs up any room.

HERE IS A NEW SOLUTION TO THE UTILITY-CORE PROBLEM

Compact mechanical core separates bedrooms from kitchen without sacrificing good kitchen-to-car relationship



Unsolved problem: typical square utility core plans long ago struck a snag. How do you locate the entrances in such a way that living area and kitchen are equally close to carport or garage? In this plan by one prefabber, the carport is close to living room but miles away from the kitchen in terms of years of carrying groceries.



Good working light comes into kitchen from clerestory. Ventilating fan is concealed in suspended shelf.



Multipurpose room, open to kitchen, lives up to its name, is suitable for daily family activity or formal dining.

Inglenook in living room is screened from foyer, at left, by somewhat overstressed block columns. Most of the walls are exposed lava block.





Slipher



Plumme



Jalonack



Rogers

Sch



Vermilve



Place



Pollman



Highland



Smith



Left to right, Admiral Hussey and Connor, Hopkins, Cadwallader, Lendrum.

Seven Round Tables will seek agreement on dimensional standards for components

In collaboration with the American Standards Association and the Research Institute of NAHB, House & Home has undertaken to develop industry-wide agreement for a few basic standard dimensions for the builder's house.

Without those dimensional standards next to nothing can be done about standard components and subassemblies to cut the cost of building better houses.

The industry-wide agreement will be sought through a series of seven Round Tables, the first of which met last month to outline the basic requirements, approved a standard ceiling height to which all components can be dimensioned, and scheduled six follow-up Round Tables to decide what coordinated standard dimensions are needed to meet more specific problems:

April 20-21: Exterior openings, including doors, windows, window walls, and garage doors

May 4-5: Bathrooms, including fixtures, plumbing and wall panels

May 31-June 1: Kitchens

June 28-29: Heating, cooling, and other mechanical equipment

July 19-20: Wall sections (especially those incorporating doors and windows)

August 9-10: Built-ins and storage walls

The report of the Round Table which launched this program follows.

Standard parts dimensioned to fit offer the No. 1 hope of lower costs

For 18 years our industry has been talking about its all-too-obvious need of a few coordinated standard dimensions for the builder house.

It is high time something was done about them.

Without such standard dimensions how can manufacturers offer coordinated components and subassemblies that will fit right and look right when we put them together on the drafting board or on the site? How can producers save the needless waste of making a multitude of unnecessary sizes — sizes that are too often wrong for the rooms in which they will be used? How can distributors and dealers avoid the costly waste of marketing and stocking hundreds of sizes we do not really need?

The greatest hope of evolutionary cost reduction lies in the greatly increased use of standard parts dimensioned to fit together.

Assembly-line construction methods could then be used to their fullest advantage. To that end we recommend:

- 1. All builders' houses where good performance, good appearance, and low cost are alike important should conform in certain respects to standard and coordinated dimensions, so that various stock components and subassemblies can be produced in few enough sizes and big enough quantities to permit the great savings of concentrated volume production.
- 2. Manufacturers should encourage this advance towards industrialization by quoting substantially lower prices on these standard sizes, so that each individual builder and his architect will have an immediate profit incentive to cooperate in the standardization program.

Components and subassemblies sized to standard dimensions offer great economies to all builders on all houses. They offer the biggest economies to the smaller builders, for there is no other way the small builder can get the benefits of mass production for site fabrication.

Now if ever is the time to set these standard dimensions and use them to get lower costs for higher quality

In the easier postwar days before competition caught up with our industry and its suppliers it was sometimes hard to arouse interest in the many-million-dollar waste of too many needless sizes. But today the housing shortage is long past except for a few big cities, a few fast-growing states and a few special groups. Net new family formation has fallen to the lowest level since 1941. Fewer families are doubled up than ever before, and the American people have better houses

In today's market the only way our industry and its suppliers can maintain their volume and increase their sales is to squeeze out every waste and offer so much better values that millions of families will wish to trade up from the good houses in which they now live into the better values we can offer them.

The panel

FROM THE AMERICAN STANDARDS ASSOCIATION

Admiral George F. Hussey Jr.

Managing director & secretary

FROM THE NATIONAL ASSOCIATION OF HOME BUILDERS RESEARCH INSTITUTE

DAVID SLIPHER, chairman
LEONARD HAEGER, technical director
MARTIN L. BARTLING, trustee
Andrew S. Place, trustee

FROM THE AMERICAN INSTITUTE OF ARCHITECTS

L. Morgan Yost, chairman
Homebuilding industry committee
John N. Highland Jr.
Past chairman, homebuilding industry committee

FROM THE PRODUCERS COUNCIL

WILLIAM K. GILLETT, president Tyler S. Rogers, past president

FROM THE FEDERAL HOUSING ADMINISTRATION

NEIL A. CONNOR, director
Architectural standards division

FROM THE VETERANS ADMINISTRATION

CHARLES HOPKINS, director

Construction & valuation services

FROM THE BUILDING RESEARCH INSTITUTE

WILLIAM H. SCHEICK, executive director

FROM THE LUMBER DEALERS RESEARCH COUNCIL

Paul Cadwallader

Executive committee

FROM THE SMALL HOMES COUNCIL

JAMES T. LENDRUM, director

FROM THE SOUTHWEST RESEARCH INSTITUTE

C William Smith, director

Division of housing & construction technology

FROM THE PREFABRICATED HOME MANUFACTURERS INSTITUTE

RICHARD B. POLLMAN, chairman
Design committee
Howard Vermilya

FROM THE NATIONAL LUMBER MANUFACTURERS ASSN.

A. S. Boisfontaine, director Southern Pine inspection bureau

FROM THE STRUCTURAL CLAY PRODUCTS INSTITUTE

HARRY C. PLUMMER, director Engineering & technology

ENGINEERS:

Walter C. Voss, consultant
Architectural construction & materials
Massachusetts Institute of Technology
IRWIN JALONACK, vice president & chief engineer
Levitt & Sons, Inc.

Moderator

P. I. Prentice, editor & publisher House & Home

First we must have a standard terminology of measurement



Haeger

When we speak of a house 26' wide, do we mean 26' from outside wall to outside wall, or 26' from inside wall to inside wall, or 26' from center line of stud to center line of stud? When we talk of wall modules, do we mean inside measurement or outside measurement? When we talk of room heights do we mean from finished floor to finished ceiling, or rough floor to underside of joist?

Only the sanction of the American Standards Association can make such a standard

terminology official, and only through ASA can the present discrepancies in terminology be reconciled quickly.

We are unanimous in urging ASA to determine and publish such a standard terminology of housing measurement at the earliest possible moment.

The small amount of money needed to finance this work should be raised through the Producers' Council and the National Association of Home Builders.

All standard dimensions should conform to the 4" module



Cadwallader

The 4" module is the indispensable basis of all dimensional coordination in the building field, but it permits a far greater number of sizes than we need for any but the smallest components. For example, some window manufacturers still make windows in more than 450 stock sizes, all theoretically conforming to the 4" module. This is far more window sizes than we need, far too many window sizes to permit the maximum economies of mass production and mass distribution.

Significantly, the first industry to espouse

the 4" module was brick, which is one of the few industries whose product is small enough to standardize on a single modular dimension.

Now that the 4" module is established, we must balance it with larger modules to coordinate the size of larger components and subassemblies.

The 4" module is jointly sponsored by the American Institute of Architects, the National Association of Homebuilders and the Producers' Council and approved by the American Standards Association.

Ceiling height is the most important of dimensions to standardize

For that standard we recommend 8' plus a tolerance from finished floor to finished ceiling for rooms where a flat ceiling is to be used.

The 8' height is visually satisfactory for any room size likely to be found in low or medium-priced houses. It is a comfortable height to live under. It is high enough to leave room for furring down the hall for air conditioning. It fits without cutting the 4' x 8' sheet size which is now standard for dry wall, plywood and many other materials.

This standard ceiling height was recommended to the industry four years ago by the Homebuilding Industry Committee of the American Institute of Architects, and the Design Committee of the National Association

of Home Builders. For one reason or another, it is now closely approximated in most volume-built homes from coast to coast.

Regional variations like the lower ceiling common in New England and the higher ceiling in the South have much less justification since better ways have been developed to cope with different temperatures—beginning with central heating, then effective insulation, and now central cooling. There is now no need of different ceiling heights to offset different climates.

The reason dimensional standardization must start with ceiling height standardization is simply this: ceiling height affects the sizing of components and subassemblies for every part of the house, inside and out.



Lendrum

Successive Round Tables should explore specific standardization problems

In collaboration with the Research Institute of the National Association of Home Builders and the American Standards Association. House & Home should undertake a series of at least six more Round Tables on dimensional standardization. At each of these meetings representative manufacturers concerned with some one aspect of the builder's house should sit down with architects and builders

to coordinate basic dimensions to which those industries could work

These successive Round Tables should save manufacturers many millions of dollars, first by helping them end the waste of producing in many sizes we do not really need, second by helping them avoid the danger of bringing out new products with wrong dimensions. (For dates and subjects of the later Round Tables see p. 126).

Bathroom standardization should focus on two objectives:

1. How can we dimension precast or prebuilt plumbing trees and other plumbing assemblies to meet the needs of almost all small houses with a minimum of on-site fabrication? This will require standard fixture spacings, and it could be greatly simplified by the general introduction of raised tubs and hung toilets. 2. How can we dimension bathroom wall components of tile, mosaic tile, porcelain enamel, plastic, glass fiber, or other materials that can be installed with a minimum of onsite labor, preferably by carpenters and preferably directly on the studs? We need a single piece 5' wide to cover the studs behind the tub, from tub to 8' ceiling. We need



Bartlina

similar sections for each end, one with holes for faucets and shower. We need modular floor-to-8'-ceiling panels for the rest of the walls-some of them with holes prepunched for pipes, others with medicine cabinets, etc., built in, others with provision for ventilating fans or wall heaters. We need a 5' long window to fill one end of the common 5' bath from stud to stud without patching at either end. Stud spacing on nonbearing walls

should be adapted to the wall panel sizes.

The basic bath for the minimum house has already standardized at 5' x 7' or 5' x 8'. We believe that not more than four larger standard bathroom dimensions could meet the needs of any builder's house.

The biggest savings from standardization should come in the two most expensive rooms of the house—the kitchen and the bath.

Coordination of exterior wall openings is urgently needed



Today it is almost impossible to buy an outside door whose head will line up properly with a garage door or a sliding glass door, nor is it possible to buy a door whose head will line up with the windows unless the windows are dropped down below their optimum

Strong continuous horizontal lines are particularly important to the small house to make it look bigger. But those strong horizontals are hard to develop with today's uncoordinated doors and windows. Manufacturers offer us doors and windows in far more

sizes than we need. We would rather have less sizes to choose from, but have those sizes coordinated to permit a continuous head line and a strong middle line across the house.

Windows should be sized to fit the needs of the house instead of being sized to meet traditional glass sizes. This is particularly important as more and more houses shift to double glazing that cannot be recut to fit.

The new house market can get along just as well on fewer window widths than are now available, provided their dimensions are properly coordinated with wall materials.

The appliance makers should help develop uniform kitchen standards



Hopkins

The fully equipped kitchen is perhaps the most important new sales tool our industry can use to crack the replacement house market and persuade prosperous families to move out of their old homes into new. With VA and the new FHA terms the package mortgage now makes it possible to offer a complete \$15,000 house with a fully equipped kitchen-range, refrigerator, freezer, disposer, dishwasher, exhaust fan, laundry, drier, and water heater-at a lower outlay than it would cost most families to modernize the kitchens in their old homes.

Built-in appliances are the biggest product news since the war. At long last the appliance makers are recognizing the importance of the new house market instead of asking the new house market to make shift with free-standing units in random sizes designed for the existing house market.

In existing houses built-ins face a real sales obstacles in installation costs which often run to hundreds of dollars-a sales obstacle they may not overcome until the new house market sets a style too strong to be resisted. But for the new house market where installation can be engineered down to a negligible

figure, built-ins should mean not higher costs, but lower.

The built-in kitchen makes some standardization of kitchen dimensions important as never before. Otherwise how can appliance makers size their built-ins to meet our needs? And how can we get competing manufacturers to size their units to fit together? Appliances have now become so important to homebuilding sales that space and rough plumbing for all major appliances should be built into the house whether or not the appliance is to be included in the original sale. The trap on all sinks should be set low enough so that a disposer can be added later. Vents for future driers should be built in before the house is finished. Space and plumbing for future dishwashers should be provided. The appliance industry should cooperate with us in working out dimensions for its units so that units of many different makes can be fitted into the spaces and rough plumbing be provided.

Homebuilding does not require more than a very few standard kitchen wall lengths. builders' houses already conform roughly to not more than four.



Boisfontaine

Here are three basic rules which must not be forgotten

Photos: Walter Daran



Connor

1. In fixing standard dimensions first consideration should always be given to the requirements of good architecture, including both good design and good livability.

Standard dimensions should meet the requirements of all standard codes. And unless there is good reason for change they should require minimum departure from dimensions established by long use.

For example, the 8' length of wall board should be considered in fixing standard ceiling height. The standard widths of floor coverings should influence room dimensions.

- 2. Nothing in our recommendations should have the effect of freezing design, blocking the introduction of better construction methods, or making all houses more alike. On the contrary, the architects among us are confident that fewer sizes, better coordinated, will give them more freedom for good design rather than less.
- 3. Any dimensional standardization must allow adequate tolerances for field installation, taking into account the material likely to be used and the capacity of the workmen.

\$50 for each new way!

House & Home will pay \$50 to any architect or builder who sends in a new way "to build better for less" that is published in this monthly department. Contributors must include all the needed pictures, drawings and facts, and of course the editors' decision on what suggestions would interest our readers must be final.

House & Home is always particularly pleased to publish a new idea developed by a small builder that big builders will have to borrow and copy!

Send your suggestions to: H&H, new ideas editor, 9 Rockefeller Plaza, New York 20, N.Y.

10 MORE WAYS TO BUILD BETTER FOR LESS

This is the second of a series of cost-cutting articles

to appear regularly in House & Home

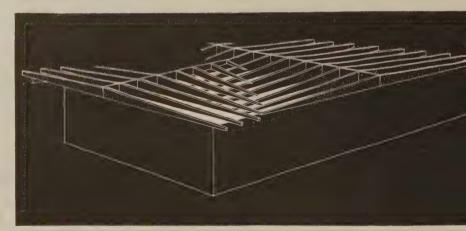
Roof joist does double duty

"I use half as much roof framing lumber with this detail," says Builder Lue Bettilyon, of Salt Lake City.

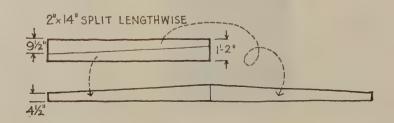
Ripping a 2"x14" diagonally, flipping one piece and butting the high ends at the ridge, Bettilyon makes the member do two jobs at once. Underneath, the joists are flat, ready for dry-wall installation; on top they are pitched for sheathing and built-up roofing. Ripping and fastening a tapered member to the top of conventional flat joists is avoided.

Those who are acquainted with this technique will probably find Bettilyon's method for letting in a perpendicular roof very new. The valley rafter is eliminated by tapering rafters to a wedge.

Vents in soffit will permit air wash over entire roof.



Topered joists (below) eliminate valley rafter



A bold new flooring system takes advantage of standard dimensions



Modular grid of floor frame is $4'' \times 6''$ girders on $4'' \times 6''$ posts 8' o.c. This takes one-third less bd. ft. than conventional 2" x 8" joists, eliminates bridging. Heavy 4" x 6"s are short enough so one man can handle them.



Metal connectors tie 2" x 4" purlins which halve each 8' section formed by $4'' \times 6''s$. Frame is thus a grid of $4' \times 4'$ rectangles. Builder saves \$73 from former in-place cost of floor by using system, and he buys lumber at \$68 per M.

Here's a modular flooring system that takes two giant steps toward greater economy:

- 1. It saves lumber (one-third fewer bd. ft. of lumber required for floor framing than for conventional flooring using 2" x 8" joists).
- 2. It utilizes dimensionally standard 4' x 8' plywood sheets to eliminate cutting, waste, and to speed installation.

Cost savings for Ken Larsen of Continental Construction Co., Seattle are at least

Major design dividend: a ground-hugging appearance for a crawl-space house usually seen only in slab construction. Photos show how system works.



Three men frame floor and lav structural plywood for integral subfloor and underlayment in $\frac{1}{2}$ day. FHA approves system developed by Douglas Fir Plywood Assn. Frame flush with footing eliminates steps, landings in three places, saves \$90. (Frame supports edges of plywood; plywood acts as continuous beam over 4' spans.)



Unique benefit: plumber finishes quickly since plywood panels can be lifted, cutting \$30 off plumbing bill. Concrete-covered crawl space acts as cold-air plenum, eliminates return ducts. By-product savings:

12" cut in wall height saves \$40 in time and materials for framing and siding.

Lower exterior walls cut labor for staging and carpentry needed to finish and trim gutters and gable ends.

19 How to slice trenching costs





Mobile trencher can easily make 90° turn (above), speeds off to next foundation job when finished.

Big Builders Fischer & Frichtel of St. Louis recommend purchase of a trenching machine: "It cuts our cost at least \$25, as much as \$75 where soil conditions are rough."

Once small operators themselves, F&F urge small-volume builders either to lease a trencher or get subcontractors to use one. The Fischer brothers can amortize the cost of their trencher over 500 houses, estimate any builder should be able to slice \$10 to \$15 in digging costs if a subcontractor uses one. Its advantages:

Mobility: "It can be moved quickly from site to site."

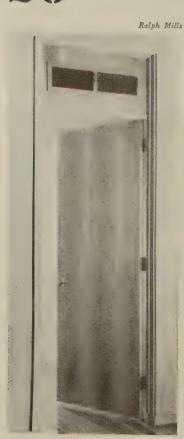
Maneuverability: "It can work on slopes and in awfully tight corner spots."

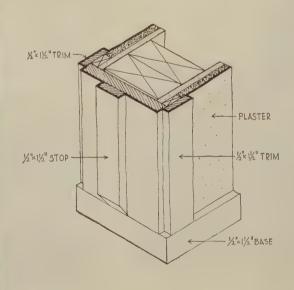
Economy: "It can dig perfectly square corners and save on concrete. And, if you own one, you can lease it when you're not using it to amortize its cost faster."

Note: Builder Burt Duenke recommends that builders who subcontract foundation work check to see that the correct size trenching wheel is used on wheel-type trenchers. "I found one sub using an 11" instead of an 8" wheel. That cost me 1.1 extra yds. of concrete or \$16.50 until I had him use an 8" wheel."

20

Rectangular door jamb makes for cheaper tile-fitting





Truncated door stop has 45° cut above baseboard. Simple profile around jamb works equally well for tile or hardwood finish floors.

Simplification of the door jamb detail has paid off in builder houses designed by Raleigh, N. C. Architect Milton Small in two ways:

- 1. Door frame can be prefabricated;
- 2. It looks tidy and well planned.

In a builder's house he designed, Architect Small had the door stops cut off about 6" above the floor, ending the need to fit the asphalt floor tile around a complicated door jamb profile. He then made his jamb edge flush with the face of the baseboards on both sides of the partition, so that tile could be set in straight, rectangular patterns, further eliminating floor tile fitting. The job is neat, efficient.

21 Truss shrinks for shipment

Having tried just about every kind of truss, American Houses of New York settled for the one shown here. Reason: the smaller collapsed truss bundle permitted American to get an entire house on each truck (formerly it occupied a truck and one-fifth), a saving of \$75 to \$100 per house.

The secret lay in the split-ring connectors used at the joints. The truss arrives at the site in a package only 8"x12"—as long as the lower chord—and is quickly assembled without a jig. Although the ring connector truss costs slightly more than nailed or glued types, the saving in shipping space pays for it many times over.

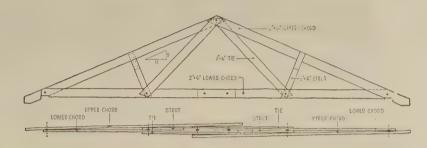
Prefabbing American uses both Fink and fan trusses, ships their Fink truss in a complete assembly, bundles the fan struts separately for field installation.



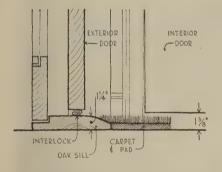
H. P. Vermilya



Collapsed trusses are loaded atop wall panels on truck-trailer



22 A high threshold for deep carpets



Deep-tufted carpeting and close fitting doors don't always get along together, some builders have discovered. Owners later ask their builder to saw off the doors to clear the carpets, expect the builder to bear the expense.

South Bend Builder Andy Place cured this headache for himself by installing $1\frac{1}{4}$ " thresholds under all exterior doors, hangs

interior doors 13%" clear of floor. The specially made hardwood thresholds are designed to keep the bottom of the door above the deepest pile carpet. The threshold also acts as a stop for asphalt floor tile.

Although specially made sill costs Place \$4.60 above his earlier one, he claims a net saving of \$4 per door (ordinarily spent to saw off door bottoms).

23 One versatile fixture is shower and tub-filler



Fritz Burns

"This faucet not only saves me \$3-\$5, but is a big sales feature," says West Coast Builder Fritz Burns. The saving is a result of eliminating separate piping and fittings for both the tub-filler and the shower head.

Buyers like it because they can stand, sit, shampoo and bathe the children in the adjustable shower. A twist of the shower head supplies a full stream for tub filling and adjusts to a fine needle spray.

The chromium-plated arm measures $24\frac{1}{2}$ " between joint centers, is mounted to keep head at least 1" above the tub lip, making back siphonage impossible.



Quick framing trick ends waste



Shimming under studs for tight fit at ceiling is unnecessary

Jim Dallas Studio





R. B. Walden

Donald Honn

Laborious fitting of studs under sloping ceilings irritated Texas Builders R. B. Walden & Co. (Donald Honn, architect). This year they came up with a tidy solution.

Instead of cutting-in full length studs, Walden's carpenters use standard 8' 2x4's, run them to a horizontal plate, use blocking to fasten the plate to the roof framing.

Used only on nonbearing partitions, the method saves several man-hours per house because of the fewer diagonal butt cuts and less accurate fitting required. The cost of the plate is made up for by the elimination of waste; at the same time the plate acts as a fire stop and stiffens the wall.

25 Duct installation is simple, speedy

Two semiskilled laborers install this perimeter duct system in 2 hours and 20 minutes.

Speed plus simplicity of parts lets Builder R. B. Walden cut labor costs on duct installation in half. Here's how:

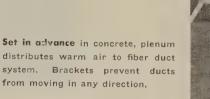
• Workmen keep ducts from floating out of place with wood brackets while the concrete floor is being poured. These brackets are fastened to the anchor bolts in the stem wall, are removed after concrete sets, reused many times.

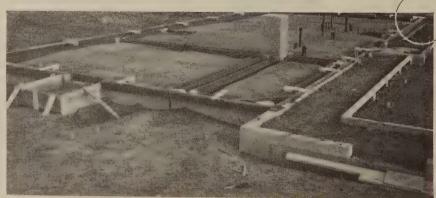
Outlets for heated—or cooled—air are formed in a novel way: three layers of insulation board are cut to register size, wired to top, and concrete floor is poured. Later, when registers are installed, the board is removed and an opening is cut in the fiber duct. Registers are then simply set into the floor openings.

Galvanized ells are used for corners and turns, and plastic tape seals the joints.



Simple wood brackets cost 25¢ each





26 Facades change—costs remain the same

Identical plans can look very different from the street with simple changes in the front elevations, as proved by the photos on this page. Texas Builder R. B. Walden worked closely with his architect, Donald Honn, to get this variety at very little expense.

Though similar in color, the brick and panel variations make two very different houses. Even greater variety is achieved by

changes in mass as shown in sketches below.

"Costs in all these houses remain constant though the shell changes," reports Builder Walden. Materials required for each house are basically the same. Construction technique remains the same. The only item that can vary: labor. But Walden's crews are trained to operate efficiently on any of two or three exterior elevation types.





Identical plan is used in the four examples shown here. Like the others, house above is predominantly brick-in this case with vertical panels in front. Roof pitches to front and back.





Wood panel separating front windows is replaced by brick mass. Panels under front windows have darker color, roof pitches to sides. Lattice is used in breezeway as privacy barrier.





Buff colored brick makes obvious contrast to other houses. Roof ridge runs length of main house mass, connects with flat roof over garage. Accent in front is horizontal.





Roof again pitches to front and back. Notice how different the horizontal window and panel mass appear with a flat soffit above than in gable end house (see third house from top).

The debate grows as big as the boom

Are we overbuilding? Controversy spreads to platform, pundit and Congress. FORTUNE predicts 1.45 million starts

—provided mortgage money holds out

"The basic difference between man and animals is man's ability to handle credit."—Old saw

Some people were as worried about an untrammeled boom this spring as they had been about an incipient recession a year ago.

Housing, some of them thought, was hog

But it depended what one meant by boom. "I do not think we have a boom, in the popular idea of the term," said George Johnson of the Dime Savings Bank in Brooklyn. N.Y. (see p. 137). "Instead, it is a natural expansion of our housing to meet the needs of a fantastically-increasing population, with incomes to afford modern homes."

Economist Roy Wenzlick of St. Louis saw it differently. "The Housing Act of 1954," he said, "is building a boom on top of a boom."

Cooking with credit. There was certainly no doubt that the pace of new residential building—of all construction—was impressive. February figures from the Commerce and Labor Depts. showed private construction 21% ahead of what it was last year, with new dwelling activity 41% up. Starts were running close to an annual pace of 1.4 million. It was also notable that industrial construction, according to revised January estimates, showed a gain for the first time in many months over the previous year's figures.

Construction was thus as prominent a feature of the present business recovery as it was a sustaining force during last year's recession. True, the adjusted annual rate of starts had declined since December—to 1.42 million in January and to 1.38 million in February—but it was still a whale of a pace.

While admitting that the next "major turn" in the building rate will be down, not up, House & Home's sister publication Fortune, predicts this month in its annual builder survey that a new-record rate of 1.45 million homes a year can be maintained. Basing its forecast heavily on "the vastness of the replacement market" and to some extent on household formations, the magazine declares that "financing and costs permitting" these factors could "maintain the present rate of homebuilding for several years." FORTUNE surveyed 350 homebuilders in 38 cities, found optimism nationwide. Nearly one-third of those quizzed thought mortgage money was already tighter than a year ago, but did not feel it would pinch until 1956. And two-thirds were willing to venture forecasts for 1956, with 93% expecting starts that year to equal or exceed this year's total.

Easing of residential activity, predicted by many, would not come overnight. Any slackening in homebuilding would depend on just how tense private lenders and government policy makers became about the possibility of inflationary overbuilding. Then some sort

of control would have to be enforced. But to date this control had not been put into effect and there was a large body of feeling, contrary to the prophet-of-crash school of thought, that said no control was needed.

How did it start? Nowhere was the old Newtonian theory that to every action there is an equal and opposite reaction so applicable as in housing. Builders had tackled the housing shortage after the war and built up such a head of steam alleviating it that they were now being thought of as entrepreneurs of some sort of inflationary holocaust. But the present boom-if it can be called thatis not as big, either on a proportionate starts basis or on a mortgage debt basis, as the boom of the late '20s. Population and births are way up now and people want to buy. But marriages are dropping! And how can the rate of homebuilding be ahead of the rate of household formation? Very simple, comes the reply from the loyal opposition: a substantial number of houses are destroyed each year (although no one knows exactly how many) and a lot of other substandard ones should be; no worry if they are vacant.

The debate on housing, however, centers on a larger and less tangible theme: credit. It is not housing per se that is bothering anybody; it is money.

Veteran question. The government's active ease program of last year—since throttled down—gave rise to a plenitude of money that brought with it, among other things, the no-down and no-no-down VA mortgage. Some months ago voices rose protesting this salespacing device. Since then 100% mortgages have become a good deal less attractive to



DOOR PRIZES, from automobiles to eggbeaters, were becoming increasingly popular as come-ons to promote home sales. Newspapers in the faster-growing areas of the nation showed not only nothing-down ads, but a variety of eye-catching exhortations to take a chance on merchandise.

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investors, as reflected in a recent drop of about ½ point in most areas, with some distress sales down to 94.

Would the no-down, no-equity mortgage "cure" itself without benefit of government action? The Veterans Administration itself announced that no changes were contemplated. Ralph Stone, deputy administrator for veterans' benefits, told the House veterans' affairs committee that VA had "no intention" of tightening up its home loan guarantee program. Thomas J. Sweeney, VA's new loan guarantee chief, echoed the same tune. Sweeney also denied that any steps were under way to reduce the maximum 30-year term. He told the committee that he thought government economists were worried about homebuilding "booming to 1.5 million starts" this year, but that he personally thought the tempo would slow down and stay in the vicinity of 1 million. Sweeney figured that VA activity would hit about what it did in '54, maybe go a little higher to 550,000 or 600,000.

More to come. As far as numbers of eligible veterans went, there was no possibility of a drop in applications. VA has underwritten about 3.5 million loans since it set up shopmore than 92% for purchase or construction of homes-and officials think that at least another 3 million veterans will take advantage of their benefits before the program is over.

With such a backlog of VAs, accompanied by increased fervor for FHA insurance under terms of the Housing Act, it was small wonder that some experts were asking whether housing was getting too big and too easy. If it was, there were governing influences to tone it down: government pressures and pressures in the building business itself.

Cut interest rates? A direct—but probably last-ditch-move would be to lower VA (continued on p. 216)

THE BANKER'S VIEWPOINT

The Senate banking committee, examining the workings of the stock market, heard a few words from Marriner S. Eccles, former chair-

man of the Federal Reserve Board, on the mortgage market. Eccles, who played a leading role in drafting the legislation that set up FHA, was not sure he liked the way things were going.

"There are elements of real danger to the economy from overbuilding of homes made possible by excessive easy mortgage terms,"

ECCLES

he stated. While the housing boom is the greatest support of the economy, he said, it is "largely sustained by a rapid growth of debt of the middle- and low-income group.

Eccles recommendations: more restrictive appraisals by FHA and VA; down payments of at least 5% and no term longer than 25 years; abolish FHA and VA open-end mortgages.

Eccles was joined at the session by Chairman John J. McCloy of the Chase National Bank. McCloy: "I think the amount of mortgage debt, the methods of financing in connection with homes, have some elements of concern in them. I don't say it's a soft spot, but I am constantly wondering whether the level of consumer debt is healthy."

Is the housing boom sound? Two lenders argue the industry's hottest basic issue

The industry's sharp differences in outlook over easy credit, FHA's function in housing and the 1955 housing boom itself were pointed up last month by two speeches. George C. Johnson, president of the Dime Savings Bank, Brooklyn (a big FHA lender) spoke in New York. J. Howard Edgerton, president of the US Savings & Loan League, spoke in Florida. But the two talks, excerpted below, could almost have been a debate:

Edgerton

Basically, our industry always has been and still is opposed to increasing the role of federal government in housing. We have con-



EDGERTON

ceded the merits and the necessity of the veterans' program but we have urged that Congress hold the FHA program somewhere near the principles surrounding its origin.... Perhaps in periods of economic stress, a more liberal home financing subsidy could be justified, but not during great prosperity. If it is a

good loan, let's make it on our own conventional plan, and if it is a bad loan, let's not pass a possible loss on to the American tax-

We face the realistic alternative of providing adequate credit for the deserving members of our communities or relinquishing the job to one of our federal agencies who will directly or indirectly subsidize the operation.

If we are to preserve our private enterprise system of home financing, we must increase the size of our loans and their maturity to a probable maximum of 80% of appraisal and 25-year maturity.

One of the unfortunate aspects of the FHA publicity is the psychology of educating the public to wanting 30-year loans. It is a normal human trait to want something the other fellow has even though you don't need it. In areas where negative no-down payments have been granted veterans, executives report that two-thirds of the veterans could make a down payment of probably 5% but once the market has been established on a no-down payment basis the veterans have consistently insisted that if their neighbor was entitled to a nodown loan they were going to insist on one

If a person borrows \$10,000 at 5% interest, for 30 years, he pays \$3,490 more than on a 20-year maturity. But the greatest evil is the small equity during the first 5 and 10 years. The first 5 years of a 30-year loan, he pays off only 8%.

It is a rather interesting phenomenon that the welfare state group within our midst has spent little time in promoting federal subsidies for food on our table or clothes on our back but has advocated vigorously over the years that housing be provided backed by the taxpayer.

I seriously recommend the financing of the operative builder where you have the money to do it. A trend among the merchant builders that may not be too wholesome is the concentration of business in the hands of larger and fewer builders.

Johnson

It is very true that mortgage lending today is on a far more liberal basis than at any time in the past, but these loans are sound. The long-term self-amortizing mortgage with low down payment has proved the greatest single factor in putting good homes within the reach of families in every income bracket.

Is this bad?

But of even more seriousness-and this is very definitely a builder's problem—is the well-defined movement in some quarters to

JOHNSON

abolish the FHA entirely. Suggestions to curtail the activity and functions of the FHA should be taken with a grain of salt. The source of these suggestions should be examined very carefully. Could some of these suggestions be made with a view of limiting competition? Have some of the op-

ponents of the FHA an axe to grind, namely, to exclude from the making of high ratio loans all but the type of institution they represent?

The Census Bureau estimates that 600,000 new households were formed last year. In 1953, the number was 800,000. In 1952, the estimate was 1 million. Nevertheless, in each vear, homebuilders sold more than 1 million homes. It is the family with children which is the biggest factor in the market-not new marriages in themselves. In an examination of the last 500 mortgage applications at my bank-these included homes selling from \$10,000 to \$42,000—84.2% of the families had one or more children. Of the 15.8% with no children, a vast majority are older couples.

No builder wants to be, or can afford to be, left with an inventory of unsold homes. Only after purchase contracts are signed does the builder commence construction. The market itself regulates the building volume. If people do not want homes, or cannot afford them, they will not buy, and builders will not build.

I do not think we have a boom, in the popular idea of the term. Instead, it is a natural expansion of our housing to meet the needs of a fantastically increasing population, with incomes to afford modern homes.

Those opposing FHA and VA argue that today's low down payments and long terms do not provide enough equity and that the terms encourage families to buy homes they cannot afford. What kind of reasoning is that? The buyer is not approved for the loan if he cannot afford the carrying charges. Any equity at all is better than a handful of rent receipts. Any effort to eliminate FHA should be opposed vigorously by everyone connected with real estate and building.



Can the building industry help minority families bridge the gulf that separates so many of them from good homes? The contrast is pointed up by the typical Negro slums, right and below, and the attractive Washington, D. C. duplexes for minority occupancy, sketch above and p. 145.



More builders are starting to build for the biggest untapped housing market.

They are still hobbled by land,

financing problems,

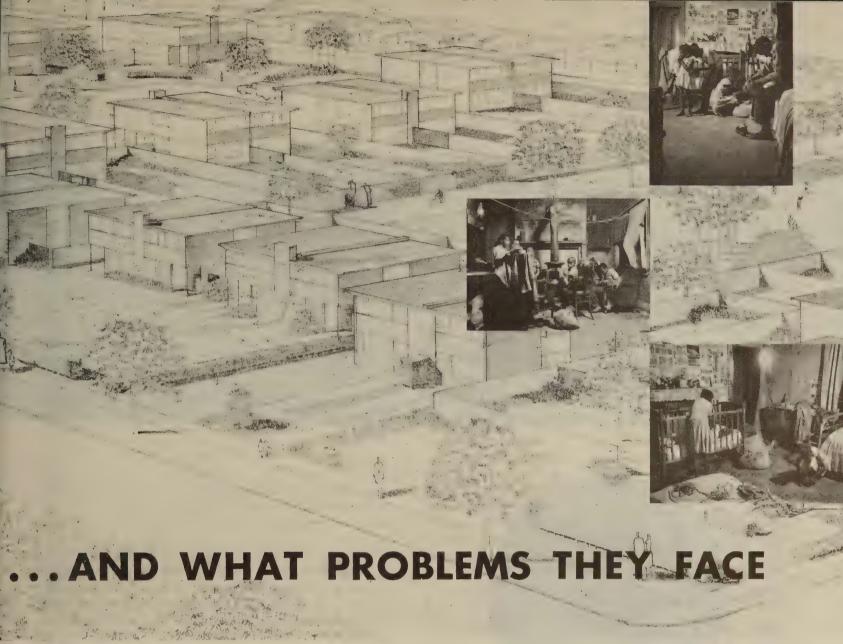
open occupancy in FHA, VA projects

Toward the end of his term as NAHB president last year, Dick Hughes sounded a warning in more than the usual terms of urgency for the frenetic homebuilding industry.

"The only way in 1955 to avoid the worst crisis we've ever had," he declared, "is for homebuilders to produce an unprecedented volume of new homes open to minority occupancy."

What worried Texan Hughes (and many another builder) was the growing clamor by Negro advancement groups for the federal government to bar FHA and VA aid to houses that are not for sale to Negroes. Such a move, Hughes has said, would be a "catastrophe" for builders.

The reason is plain enough. The widely held presumption is that most mortgage lenders would decline to make FHA and VA loans on these terms—at least for an uncomfortably long time. This theory is disputed by spokesmen for the National Urban League, which, with the National Association for the Advancement of Colored People, is in the forefront of efforts to hasten full-scale integration in housing. Their argument is that the ever present pressure on lenders to put investable funds to work would compel them to continue FHA and VA lending, anyway. Moreover, they contend, the profit potential in the minority market is too big to be ignored. On the other hand, several influential mortgage investors have told House & Home they would indeed pull out of the FHA-VA arena if open occupancy became compulsory.



Photos: Life-Jerome Akers, John Dominis

It chiefly is the profit potential, not social motives, that has beekoned a sizable number of homebuilders into the minority market already. Their ranks are steadily growing. In Houston, a recent check showed, some 35 builders were putting up houses for Negroes where no more than ten builders were doing so last year. About 2,000 homes for Negroes were built in Houston in 1954. Today, there are 3,000 under construction or planned, the local homebuilders' association estimates.

The new homes will go to a group of buyers whose incomes and job status have risen dramatically in recent years. Between 1940 and 1950, annual earnings of nonwhite workers trebled; earnings of white workers climbed only 158%. As House & Home pointed out two years ago (April '53, News), the median income of Negroes is still only about half the white median income (\$1,295 vs. \$2,481 according to the 1950 Census). But the middle-income group of nonwhites has swelled so it has created a market for private housing where none existed before. In 1939, only a microscopic 0.1% of nonwhite US families had annual incomes of \$5,000 or more. By 1950, this group had risen to 5.4%. At the same time, the proportion of nonwhites with incomes between \$3,000 and \$4,999 a year had zoomed from 3.7% to 17.8%. Though good statistics are not to be had on the subsequent expansion of this new middle class of housing customers, it is a safe bet the trend has continued.

Just how big is 1955's minority market for new homes? Nobody

really knows. Some of HHFA's race relations officials have put the *need* at 250,000 new and rehabilitated nonfarm units a year. This envisages replacing the 1.6 million nonfarm units occupied by nonwhites in 1950 which were dilapidated or lacked private bath or toilet. Unfortunately, the need is scarcely related to what the nonwhite market can pay. The number of Negro families in any one community with incomes over \$5,000 is actually small. "Possibly," mused one leader among Negro housing groups recently, "we have oversold this vast market for Negro housing."

This worry does not seem to be shared by many students of the minority market. HHFAdministrator Albert M. Cole has said repeatedly that minority housing "offers the greatest opportunity for housing expansion in the immediate future of any single market area." Yet Cole's own staffers admit they have no guess what the national market for new Negro homes is. "We're still flying blind," said one of them last month. FHA has assembled minority market studies for 50 local areas. At the urging of House & Home. the agency made two of them public last year (Nov. '54, News), but then reversed itself and reimposed a curtain of secrecy between its research and the US public.

Whatever the statistics, the broad outlines of the minority housing picture appear reasonably clear. More builders are getting into it; even better, the quality of their product is rising. But progress is still in inches, not the yards or miles the US Negro seems to feel he deserves.

No. 1 problem:

LAND

Communities need to make more of it available
to their growing minority populations.
But the obstacles are too big

for the industry to whip them by itself



Basic land problem of minorities: access to open land which, interestingly, seems more frequent in Southern, openly-segregated cities than in the North. In Oklahoma City (above) the Negro residential area (heavy line) runs from midtown to fields beyond the project (solid white & p. 144). Dotted line shows edge of built-up areas. In Chicago (below) Negroes, hemmed into areas shown in white, would meet stiff community resistance elsewhere. Inside the city about 5% of "Negro areas" is vacant; outside percentages are higher, six areas tinier.





Land is the No. 1 problem in making better homes available to minorities, the 27 members of House & Home's Round Table on housing policy reported last month.

"The big and basic failure is the failure of local communities to make desirable land available," they said. "Until the local communities recognize that this is their responsibility and do something effective about it, there is no use in denouncing the builders and the lenders for not doing more for minority groups."

It is now widely recognized that the nation's urban whites have resisted giving their cities' new nonwhite populations as much living space as their money would buy. So much so that the point needs no belaboring. What is not so well understood are some of the broad implications of the unprecedented Negro migration from farms to better paid jobs in cities, both in the South and elsewhere. Items:

▶ The Social Planning Council of St. Louis, Mo. recently concluded that the entire 5% increase in St. Louis population between 1940 and 1950 was caused by an influx of new Negro families from the low-income rural South. White population fell 4,446 statistically; but a look at birth and death rates reveals that it should have risen



Racial exclusion often drives a Cadillac house into a Ford neighborhood, say experts on minority housing problems. The \$42,000 brick home of Arthur Shores, Alabama's best known Negro lawyer, stands near a dirt street cheek by Jowl with a two-story white house assessed at \$1,350. A block away are decrepit shacks. How many Cadillacs (autos, that is) can you count in the picture?

Empty boxcars parked on a siding of the Louisville & Nashville Railroad form an adverse backdrop to the Honeysuckle Hills development in Birmingham, Ala., below. This land was almost the last piece the developer could find open to Negro occupancy.

Photos: Norman Dean



more than 48,000. What happened was that 53,000 white people quit St. Louis as low-income Negroes moved in. By 1949, with the increase in its Negro population, median earnings of St. Louis families were \$2,718; in St. Louis County the median was \$3,628 per family—a 33% difference. How serious the implications are to the business community was indicated by the fact that between 1938 and 1948, St. Louis' share of retail sales in its metropolitan area sank from 69% to 63%.

New York City's city planning department has estimated that its population growth in the next 16 years will stem entirely from its nonwhite and Puerto Rican residents. By 1970, the city will probably lose 720,000 white inhabitants, compared with the 1950 census. The drop in New York's white population was small between 1940 and 1950. But now the rate is accelerating at the same time that the city is experiencing a wave of Puerto Rican immigration and an accompanying spread of slums. City planners expect an increase of 484,000 nonwhites in New York by 1970, plus 914,000 Puerto Ricans. That would mean that 28% of the 1970 population would be nonwhite and Puerto Rican, as against only 13% in 1950. Welfare Commissioner Henry L. McCarthy has predicted New York City will have a population of a million Puerto Ricans by 1960.

Pull of expanding industry

New York City has unquestionably been hardest hit by recent waves of poor and hard-to-assimilate minorities. But the trend is typical of most US cities.

The growing racial ghettos in which today's newcomers live have become a major national problem. Yet as Philip Hauser, former US census director, has pointed out: "Each successive wave of immigrants has moved into slum areas. There they have lived in intolerable squalor until assimilated into our society. This assimilation has never occurred without considerable anguish and hate but the strength of America has been its ability to assimilate each wave."

Hauser thinks that in two or three generations of urbanization, differences in education, culture and income between the Negro and the white will largely disappear. When that happens, he pre-

dicts, assimilation will begin to take place. In other words, the Negro will solve his own housing problem.

Hauser has also pointed out a fundamental truth about racial migrations which many a US community acts as if it did not yet understand. "The Negro is not coming to Chicago because he is being invited here," Hauser has said. "He is being pulled here by our demand for an expanding labor supply. He will continue to come as long as our industries continue to expand. When he quits coming, therefore, we can begin to bury Chicago."

Does segregation ease the land problem?

In the South, where segregation is still the order of the day, many students of the problem think that land for minority housing is easier to find than it is in the North. In northern cities, where Negro groups now object to all-Negro projects, the difficulty is compounded. Open occupancy requires choice sites if it is to attract any white tenants. Few communities have shown a readiness to earmark these for anything but white residents, though the method is subterfuge rather than avowed segregation. There are some who argue that the Negro's choice in the North is between better housing or integrated housing. Neither alternative is pleasant for Negroes to contemplate. An additional complication is that in New York, where the problem is greatest, land is too expensive for low-rise construction. High-rise construction for minorities (as well as for anybody else) depends principally on solving the rental housing problem. That is quite a different problem from the minority problem.

In some southern cities like Oklahoma City (map, opposite) the pressure of minority occupancy is minimized by the fact that Negro areas have found access to undeveloped land. But the typical pattern in the North is something akin to Chicago's (see map) where minority residents are bottled up in a few areas—mostly aging neighborhoods—and meet stiff community resistance anywhere else. But some southern cities face a scarcity of land,

In Louisville, Builder G. R. Day found his chief problem was finding lots on which to build \$50 a month rental duplexes. Most old vacant lots are either too narrow to be suitable for one floor (Text continued on p. 206; Minority housing continues on next page)

No. 2 problem

FINANCING

Lending in the minority market costs more because it is full of imperfectly known risks.

Some of them: projects tend to be mediocre,

delinquencies, credit screening cause grief



William A. Clarke, the eminent Philadelphia mortgage banker, told the Urban League in a talk last fall that there have been "more screwy deals involving housing for minority groups" than in any other field. Responsible builders, Clarke mused (he was speaking at the time as MBA president), are too busy to "mess around with the extra trouble." The result is "all sorts of deals by irresponsible people." He cited a proposed 450-unit apartment with rents from \$90 to \$130 a month. The lenders were unsure the "unknown market" would support such a high level, suggested the promoter trim his plan to 50 units to try it out. He refused. "We'll probably get cussed for not being willing to finance minority housing," Clarke noted.

Mortgage lenders are getting used to being cussed for not financing minority housing. But as Clarke indicated, they can argue that they have good reasons. The same know-how that has gone into serving the mass US housing market has not yet been applied to serving the big US minority, the Negro. The fact that builders almost always have to pay 2 to 5 points for minority mortgages is partly a reflection of this. And some lenders believe—as Clarke told the UL—that "the problem [of separating good deals from bad] is too difficult and they are not going to bother with it."

Last year's cascade of easy money loosened up the flow of private funds into minority housing. But at the same time, Congress was persuaded to shut off the government fountain of mortgage credit, FNMA, which many a builder had come to regard as salvation for Negro loans. It may or it may not be easier to unload a punk project on FNMA; but it is certain the agency is officially color-blind. Instead of FNMA, the minority financing problem now has the Voluntary Home Mortgage Credit program. VHMC. which is some five months old, proudly announced last month that it had arranged its first loan to a Negro family-a 25-year, \$17,950 VA loan to the director of the Veterans High School Center in Washington, D. C. Whether VHMC will corral enough minority money from private lenders to take the political heat off the loan problem will take more time to determine. Rep William Ayres (R, Ohio) called VHMC "largely illusory" for minorities last month. He urged VA to make all Negro veterans eligible for direct loans-a thought that should horrify nonbelievers in class legislation. HHFAdministrator Cole has hinted he will pump money in through FNMA again, if VHMC fails.

On an economic plane, minority mortgage finance presents three problems to which nobody, as far as House & Home can discover, thinks he has enough answers:

- 1. How thin is the Negro market? In Chicago, with the nation's second biggest concentration of urban Negroes, New York Life's Lake Meadows slum redevelopment has found it dares not build the 23-story, 640 unit apartment slabs originally planned. One reason: it might flood the market for units renting for \$28 a room. Only 5% of US Negroes appear to have family incomes of \$5,000 a year or more. It is chiefly the active fringe of Negroes that is closing the gap betwen its own and the white standard of living, leaving the lower levels of Negro life untouched. With this in mind, some mortgage men who have studied the problem argue that the untapped minority market is for \$12,000 to \$18,000 new homes "to uncork the bottleneck in the supply," rather than the \$6,000 to \$10,000 homes most builders are putting up.
- 2. What are the causes of delinquency? President Maurice E. Massey of People's Bond & Mortgage Co., Philadelphia, has said there is no difference between Negroes and whites on the 12,000 loans he services. But an influential Southern mortgage banker has called Negro delinquencies on his 56,000 portfolio "more than twice the over-all average." Midland Mortgage Co. in Oklahoma City says Negro delinquencies on its FNMA portfolio run to a whopping 4%; whites are under 1%. An official of T. J. Bettes started to keep track of this differential in his loans, but gave it up after screening 1,000 cases because he couldn't find any. Most explanations point to credit screening as the flaw, but many a lender is convinced that the rigorous screening vital to prevent high delinquency is bad business because it arouses antagonisms. MBA has launched a study in cooperation with FHA to dig into the problem, but it will be months before there are any answers.
- 3. How much credit screening (it is costly) is enough? Most lenders agree privately (some are brave enough to say so publicly) that more rigorous inquiry is vital. Realtor Lee O'Hern of Oklahoma City often runs a court check on would-be customers before he submits their names to FHA or VA. Bill Clarke's organization has recently added to its usual credit probe a visit to a Negro buyer's present home to see what it looks like. The inspection, the real purpose of which is kept quiet, is omitted where obviously unnecessary. "The difficulty," theorizes Robert Irving, Clarke's executive vice president, "seems to lie in the fact that in character, attitude and earning stability the minority group includes the best and the worst. . . . The good are very good and the bad very bad."

RED TAPE

Builder Joe Merrion of Chicago,

after a long bout with shifting regulations,

finally gets started

on a project of handsome row houses

Many a US city would like to put much new minority housing on slum-cleared land. But federal and local officials have spun such a fantastic web of red tape that the wonder is not that so little is built, but that anything is built at all.

Consider the case of Joseph E. Merrion, an energetic, white-thatched Chicago builder (and former NAHB president) who is in the habit of putting up some 500 new homes a year. Merrion has developed entire suburbs on Chicago's outskirts with efficiency and dispatch. Four-and-a-half years ago, Merrion was persuaded to apply his know-how to rebuilding a section of the city's oldest and dirtiest slums. He lined up financial backers, rounded up 300 Negro residents of the area who had \$2,000 or more apiece for down payments and applied to the Chicago Land Clearance Commission for approval of a row house development.

Since then, Merrion has been walking through a bureaucratic wonderland. Jumping out from behind trees have been a weird assortment of wonderland creatures with such names as "standards," "specifications," "requirements," "approvals," "disapprovals," "permits," "revisions," "yes's," "no's" and "maybes." Nowhere has a spadeful of earth been turned.

Merrion's plan, the product of a joint committee of the Metropolitan Chicago Home Builders' Assn., was to buy a couple of blocks of vacant land in the slum area and build some homes. This would be a pilot project. Eventually, it was hoped, 50 or more

builders might participate in a massive \$75 million slum renewal program. Planners of the land clearance commission spiked the first Merrion proposal because the vacant land for which he sought federal write-down monies, they held, should be conserved for industrial use. In early 1952, Merrion was sought out

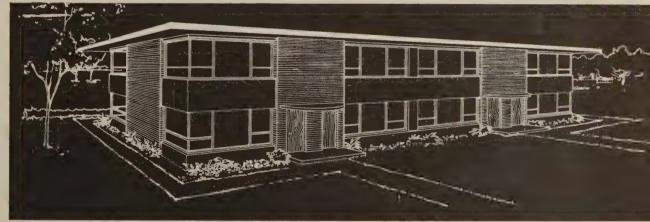
by the pastors of the
St. James Roman Catholic Church.
They were anxious to improve the neighborhood
in which their Negro parishioners lived.
Merrion went again to land clearance. After preliminary favorable talks, he put his plan in writing March 14, 1952.

The plan was to cover 22 blocks and provide initially 150 new row homes. Later stages would double or triple this quantity. Public reaction, both official and unofficial, was favorable. Aldermen praised the scheme. The mayor blessed it. The Land Clearance Commission approved it as redevelopment project No. 6.

Then trouble struck. It was explained that the federal requirements for such work were "unstable." Project sponsors found themselves trying to work from a footing of quicksand. They trimmed their plans to conform to standards, then learned that the standards had been changed and the project still did not conform. There was a dispute over whether such expensive land (\$3 per sq. ft.) could, or should, be used for row houses. This wrangle lasted for months. There were questions as to what type of existing buildings within the area could be left standing, what type must be demolished. There were hassels over whether streets should be closed, rerouted, or left alone.

But in May 1953, there appeared to be "substantial conformity" to everybody's requirements. With a public flourish, Mayor Martin Kennelly announced that after "long delay" construction could start soon. But construction did not start. The land clearance outfit, it developed, had a number of items to settle.

"I got the vague feeling that someone wanted to keep this project moving—in circles," Merrion says. "I never could put my (continued on p. 198)



Handsome row housing for Chicago redevelopment project will consist of 100 two-, three- and four-bedroom units. Prices: \$11,000 to \$13,000. Project covers 27 acres in Negro-occupied near-South Side. Architect: Emil Minx.

Wray Studio



Norwood Manor (I.), Atlanta, by Thomasville Developers, got most mortgage loans from Negro-owned Mutual Federal S&L at par, with 100% GIs for one point. Price: \$8,250-\$9,250. Biggest problem: few qualified buyers.

\$60-a-month rental units (r.) in Columbus, Ohio, have long waiting list. Columbus, homebuilders sold \$117,000 in stock to start this FHA 207, wangled local mortgage funds. Cost-cutting leaves drab exterior; few care.



Prefabs at Dayton, Ohio (I.), (Pease Woodwork; Robert L. Pine, builder) sell from \$11,500 to \$16,000. In two years, no delinquencies, but Pine says No. 1 problem is financing. Half of buyers are college graduates.



Photo Craftsmen, Inc.



Chesapeake Manor Gardens at Norfolk, 81-acre tract by Viking Construction Corp., offers houses from \$7,250 to \$9,150. First 316 units indicated most demand for three-bedrooms at top price. 450 more are planned.

PROJECT ROUNDUP:

Above: four typical developments offer needed shelter

Below: much-praised tract with 5% delinquencies

If all Negro housing tracts followed the pattern of the one pictured at the bottom of this page, builders would have far less trouble financing them.

Such is the observation of Milford Vieser, financial vice president of Mutual Benefit Life Insurance Co. of Newark and Life Insurance Assn. mortgage chairman.

What makes the Garden Oaks development in Oklahoma City so attractive? First, it mixes low-priced homes (\$8,300-\$9,250) with middle-bracket (\$9,500-\$11,700) houses and even includes a few in the \$11,550 to \$20,000 range. It is near a shopping center, and contiguous to the city's Negro district (see map p. 140). Developer Charles H. Stanford, an oldtime plasterer turned big builder, gambled \$563,000 to develop 335 acres of farm land on the city outskirts when he found no good sites closer in. Since 1952, he has built 360 of a projected 1,000 homes, has 179 prefabs underway. The experience, according to Sales Agent Lee R. O'Hern, has revealed these things about the Negro market: 1) surprisingly, the \$10,000-up house sells fastest, is easiest to finance, 2) six of ten sales are based on trade-ins, 3) "we find architecture is just not noticed."

O'Hern blames the project's 5% mortgage delinquency record partly on the fact that payments fell just before payday at Tinker Field, where most of his customers work. Despite many overtures, most mortgage firms have spurned Garden Oaks loans. About 80% have wound up in FNMA—at discounts of 1 to 4% which bite into profits,



Duplex on a cramped lot manages . . .

GOOD DESIGN

Brick, redwood, cypress and glass blend in modern Washington project

All too often, new homes open to minority occupancy are so routinely designed as to merit the derisive label: "second-class housing for second-class citizens."

These handsome duplexes in Washington, D.C. are a noteworthy exception. They rank, in fact, as one of the nation's top architectural efforts for minorities. President David S. Campbell of Aberdeen Properties, Inc., the builder, and Architects Leon Brown and Thomas W. D. Wright of Washington have packed 1,136 sq. ft. of upstairs living area (plus 568 sq. ft. of basement) into each unit for a sales price of \$13,750 to \$14,250. Eight inch face bricks are topped by walls of vertical or horizontal cypress and redwood—some natural, some bleached, some stained.

Land at the eastern edge of the District of Columbia is expensive (about \$14,000 an acre.) Some of the lot sizes were too small to meet FHA minimum property requirements (there are to be 50 units on the site instead of FHA's top of 32). So financing is conventional—from two local S&Ls—Perpetual Building Assn. and Columbia Federal (one point for takeout, one for construction loan). Campbell discovered that "not many Negroes have \$1,500 in cash, though they have no trouble meeting our monthly payments." Six of his first ten buyers used proceeds from sales of older homes to meet the down payment. After this, says Campbell, he will go FHA-VA with minority projects.

> Rear wall almost entirely of glass gives the second-floor living room a view across a relatively undeveloped area. Negroes prefer to live inside the District of Columbia, says Developer Campbell, because schools are integrated, and the outlook is "not nearly so Southern" as in surrounding Maryland and Virginia. Sales agent: Eiland Bros.



Photos above: Robert C. Lautman; furnishings courtesy Modern Design Inc., Washington, D. C.

Prefabber Hamilton Crawford points out features of one Pontchartrain Park house to Mayor deLesseps Morrison, Edgar B. Stern and Charles Keller. Stern is president, Keller vice president of developing firm.





Subdivision model shows from tract encircles 185-acre city park including 48hole golf course, pool and playgrounds. Project adjoins Crawford's famed Gentilly V/oods development.

For the funciest minority subdivision New Orleans (and perhaps the whole nation) has seen in postwar years, the developers have turned on an unprecedented barrage of sales promotion.

If that seems strange in a market where ill-housed families are supposed to be ready to beat a path to the door of better homes, consider the formidable economics of serving the Negro market in New Orleans.

Since most of the city lies below the sea level, site preparation requires costly drainage, grading, fill and often piling. Just about the cheapest 50' x 125' improved lot in a good location in New Orleans will cost \$2,000. Pontchartrain Park—rugged and marshy—was no exception. Yet its 210 acres were generally considered the best undeveloped home sites in the city. Accordingly Prefabber Hamilton Crawford and the other sponsors of Pontchartrain Park Homes wanted to give it top improvements—all utilities, underground, drainage, curbs, gutters, sidewalks, paved streets and other facilities akin to Crawford's famed Gentilly Woods development, which adjoins it. Resulting high lot costs precluded low-priced housing.

Could the New Orleans Negro market support a 1,000-unit project of middle and upper-bracket homes? An FHA survey showed

LESSON IN MERCHANDISING

New Orleans project,
forced into high-middle price brackets
by land costs,
pulls out all the sales stops

29% of the city's nonwhite population could afford monthly housing payments of \$54 and up. Applied to the 38,849 units occupied by nonwhite renters, this indicated only 11,277 families would be potential buyers. (Cheapest Ponchartrain model, 700 sq. ft., sells for \$9,725, including a \$2,725 lot, and takes \$55.32 a month VA, \$59.02 a month FHA.

Pontchartrain officials made a study of their own and the local Urban League contributed another. Even from these, the developers were unable to feel sure that Negroes would buy very many homes priced above \$10,000. The result was the preselling campaign pictured on these two pages—a \$25,000 investment which has paid off handsomely in preventing much more costly misgauging of the market.

The way Pontchartrain Park pulled out all the sales stops makes a textbook of how to "hard-sell" the nonwhite market, too. Mayor deLesseps Morrison made the main speech at a well bally-hooed preview ceremony held in an auditorium-sized exhibit and sales room on New Orleans' main street. He told an audience of 100 local Negro leaders: "The development will be super deluxe, with features that cannot be matched in the city."

Results were quick. In ten days, 67 homes were sold from plans and displays. By last month, sales were up to 147. Average price: \$12,838. Range: \$9,725 to \$30,000. Reported Executive Vice President Morgan G. Earnest: "The cheapest house has been our best seller. This confirms our analysis. We have sold 35 houses, however, priced above \$15,000 which indicates there is some market for higher-priced homes."



Negro leaders at kickoff ceremony included Dr. George Snowden, chief of FHA race relations service. He cited the project as one of the first offering minority housing in middle and higher income brackets. Snowden heads group of ten FHA race relations men who work with builders and lenders to promote minority homes.

below and opposite page: Leon Trice



Preview crowd of more than 100 persons included a who's who of New Orleans Negro leadership

Downtown sales office in the shadow of new Texaco Building on Canal St. (first floor of white building at left, below) helped pull customers. Interior contains \$20,000 display showing every house offered. Financing data shows at a glance above each scale model. Simulated kitchen shows appliances. Sales staff has 15 Negroes. Negro attorney handles many closings.



Typical Crawford prefabs being sold at Pontchartrain include model 1054 (right) and model 900 (far right) both named for their square footage. The 1054, third most popular, costs from \$13,800 to \$16,750. The 900 is priced from \$12,625 to \$12,780.



LOCATION: New Orleans, La.

PONTCHARTRAIN PARK HOMES, Inc., developers

CRAWFORD CORP., houses and services

KELLER CONSTRUCTION CO., site improvements

PRUDENTIAL & NEW YORK LIFE INSURANCE COS., mortgage financing



OPEN OCCUPANCY

Negro groups say segregation's day is past, press for compulsory integration.

Industry argues it reflects US beliefs,

hopes to ease tensions by volume output







Robert Dowling

William J. Levitt

The three men pictured here have been protagonists in the early rounds of a still developing legal drama that could profoundly affect the future of homebuilding.

Their tricornered fight over segregation in FHA and VA-aided housing lines up like this:

Robert Dowling of New York, president of the Natl. Urban League (and himself a big-scale city and suburban developer and investor), has been putting the heat on President Eisenhower to promulgate stringent federal regulations outlawing FHA and VA backing for housing where there is racial discrimination.

Thurgood Marshall, attorney for the Natl. Association for the Advancement of Colored People (NAACP), who won the celebrated Supreme Court decision barring school segregation last year, has now gone to the legal mat with Big Builder William J. **Levitt.** The accusation: by refusing to sell homes to Negroes in his big Levittown, Pa. development, Levitt has been illegally "discriminating" against Negroes. District Judge William H. Kirkpatrick dismissed the suit last month for lack of jurisdiction, but NAACP announced it will appeal. The judge observed: "Neither FHA nor VA [whose chiefs were codefendants] has been charged by Congress with the duty of preventing discrimination in the sales of housing project properties. What the plaintiffs are saying in effect is that these agencies ought to be charged with that duty. That is something that can only be done by Congress.'

If either the Urban League or the NAACP can make its point stick, open occupancy apparently will become the price of federal aid to private housing. That would mean simply that FHA and VA would either 1) fade out of the picture or 2) become a strong spur to total integration.

Unwelcome cloak of social reform

Neither prospect is pleasant for the building fraternity to contemplate. "We can't set up a homebuilding project as a social reform," former NAHB President Dick Hughes has explained. "Nearly complete integration [is something] for which our society is not ready.'

The industry's ability to sell the million-plus new homes a year that means prosperity hinges on the low down payments made possible by FHA and VA. Abandoning them is so unthinkable it is not even discussed.

So industry's answer to the clamor for open occupancy has been: build more housing. Says NAHB's Hughes: "Pressure on the courts to decree and the Congress to legislate housing for the minority groups will be reduced in direct proportion to the number of houses that we make available for them under the same financial terms and conditions as we provide housing for whites."

Advocates of moderation have an important adherent in the person of HHFAdministrator Albert M. Cole. Last fall, he warned the Urban League that federal compulsion of open occupancy "would just make everything much tougher and increase the abrasive factors that slow down the real—the permanent—progress to integration." On another occasion, Cole gave a different Negro group metaphorical suggestion that moving too far too fast may do Negro chances for housing more harm than good. Said he: "It is our responsibility . . . that we do not allow the tree of racial freedom to be chopped down out of zeal and impatience to harvest its fruit. . . . The federal government has a responsibility for leadership; it cannot sit by and merely wait for things to be different.... But the government cannot act for the states or communities nor force them into action they are not persuaded they should take." On a third occasion, the government's top housing man declared: "This is not primarily a federal problem. . . . The real problem lies with the citizens—the businessmen, the builders, the lenders, the realtors and the civic leaders and officials. . . . " Cole coupled this observation with a plea he has been making repeatedly: "The blockade of custom and code, of unjustified economic fears, must be breached, and the Negro family must be given access to good homes and good neighborhoods. No citizen can afford to let this minority housing pressure continue to build up to the explosion point, as it already has in some instances."

Background of covenants

Attacks on FHA's role in segregation are more understandable in the light of history. At its outset in 1934, FHA adopted racial homogeneity as a requirement for top valuations. "If a neighborhood is to retain stability," said an early underwriting manual, "it is necessary that properties shall continue to be occupied by the same social and racial classes." Accordingly, FHA encouraged the spread of racial covenants. The policy persisted until about 1948, when the US Supreme Court held enforcement of racial covenants in court was illegal. By the time (Dec. 2, 1949) FHA agreed not to insure mortgages on properties subject to racial covenants, argue advocates of integration, a peculiarly permanent lot of damage had been done. "If any federal agency has con-

. And the occupancy that is open

(to Negroes):

transition neighborhoods

Side by side on the postwar subdivision street pictured, right, a friendly knot of white and Negro children could be found at play most any sunny day last month.

Neither the scene nor the trim little houses in it look particularly startling. For every Cicero and Trumbull Park where the spread of nonwhite population has led to ugly violence, there are scores of peaceful neighborhoods in transition. If the story of this one in San Antonio, Tex. is typical in outline, its details whisper times are changing in the South, too.

Bremer & Wilhelm's Eastlawn Addition started life in 1949 as an all-white development of \$5,800 to \$8,500 bungalows (from two-bedrooms in 626 sq. ft. to three-bedrooms in 832 sq. ft.). GI buyers snapped them up. Eastlawn, however, lay directly east of San Antonio's main Negro housing district. In those postwar years, little attention was being paid to the increasing ability of nonwhites to pay for better dwellings. In mid-1952, the first Negro buyer jumped the half mile of brush separating Eastlawn from the colored slums, bought a home in the project. Others followed. Today, about 3% of the 200 homes in the tract are still in white hands. Some of the white owners left are selling out, but others say they will stick to their homes. "I'm staying right where I am," one owner told House & Home's correspondent. "The Negroes don't bother me and I don't bother them."

Realty Broker Pat Murphy, who has arranged 50 or more sales in the changing neighborhood, says some original buyers have told him they have better neighbors now. One of the first Negro occupants, Mrs. O. L. Hayes, a school cafeteria worker whose husband is a cook at a top San Antonio restaurant, agrees the transi-

tion has been devoid of bitterness or tensions. One reason, of course, may be that most white owners have been able to sell out at a profit. Mrs. Hayes paid \$8,400 for her house. For a year, the going price ranged from \$7,800 to \$8,200 for the smaller houses; now it has dropped. Explains Murphy: "The Negroes I've dealt with . . . had no place to go. At the time they could pay more money than whites would for these homes."

The original white owners—civil service workers, policemen, railroad men, skilled labor-have now been largely supplanted by Negro civil service workers, ministers, railway postal clerks and skilled labor. Typically, most wives also work. Farm & Home Savings & Loan Assn., which made

not. Except for one thing: for-sale signs.

The story of Eastlawn Addition is the story of the bulk of the Negro housing market. It will continue to be so. Existing homes are, of course, the bulk of the US housing market. Some 9 million US households move every year; only 11/4 million of them move into new units. The old house offers more space, closer in, cheaper than the new house. All these items suit the Negro market.

It is a phenomenon of segregated housing that you can add to the supply without building anything. Sometimes, as in Baltimore, this results in "great surges" providing huge (over 20,000 since 1945) statisticians figure) additions to the available supply of Negro units.

Photo: Elicson



... a friendly knot of white and Negro children ...

many of the original loans, still holds many of the loans. Farm & Home's L. A. Lawlor says the mortgage payment record of the new owners has been as good as in any similar white area. And nobody, driving down the street, can tell which homes are white-occupied and which are

These dynamics of blockbusting, sadly, tend to inhibit the market for new open occupancy housing. For the building industry three goals create a triple difficulty: expand Negro areas of existing housing, build new homes, create open-occupancy housing. Each works against the need for the others. FORBIDDEN NEIGHBORS—a study of prejudice in housing.

By Charles Abrams. Harper & Bros., New York. \$5

FORBIDDEN

NEIGHBORS

'awyer Charles Abrams' new book

attacks bias in housing

and proposes a controversial plan

to move against it

Charles Abrams, the brilliant and irrepressible thinker and writer on housing matters, has flung another firecracker at the homebuilding industry.

He is in his best form—thorough, opinionated, argumentative and provocative—as he takes off after racial discrimination in housing, and blames the industry for fostering much of it.

Before he gets through the preface to his 404-page book, Lawyer Abrams is well on his controversial way. He notes that race bias, long a familiar ingredient of the South's culture, spread North in a major way exactly as the US Negro population migrated from the South during World War II and afterwards. Then:

"The most serious danger, however, lay in the political sphere. In the transition from a private to a welfare economy, private housing operations were now being implemented by public power, public credit and public subsidy. And there was the danger that the prejudices of the private market would not only be adapted and supported by the government but be backed by its coercive power. From 1935 to 1950, in fact, prejudice and public power were already well advanced toward an alliance which was challenging the fundamental values of the American system."

Abrams accuses FHA of adopting a racial policy "that could well have been culled from the Nuremberg laws"—relying, he implies, on realtor theories that property values thus were best protected. It was not until the Supreme Court struck down protective covenants in 1948 and again in 1950, he says, that FHA modified its attitude. FHA's policy, he says, had the support of thousands of realtors "bound to the antiracial code of ethics of NAREB and its thousands of allied builders." He calls the result evil of "a particularly enduring character"—thousands of new racially segregated neighborhoods.

In other exhaustively documented chapters, Abrams ticks over the gamut of segregation topics—the so-called philosophical "fallacies," the role of savings and loan associations, dynamitings and violence in Miami, Chicago, Detroit and elsewhere, the new Puerto Rican problem, discrimination in hotels and resorts. On p. 224, he even includes a rundown of segregation methods—some of which, he says, still work. Realist as well as reformer, Abrams also makes these observations:

- ▶ In the South, any pattern but segregation "is impractical for the time being. . . . Integration cannot be achieved overnight."
- ▶ Public housing has demonstrated (in the North) that integrated occupancy can work. In 1953, some 33,000 Negro families were living next door to or across the hall from white neighbors. They constituted a quarter of all the Negroes in public housing. Projects with 6 to 30% Negro occupancy, however, were "generally the successful ones." They provided security of numbers for the minority, no affront to the sense of white majority.
- ▶ "Outlawing discrimination [by federal action] in one- and twofamily houses would probably be premature in most places and invite difficulties. But it might be ripe in large-scale private developments where the right of an owner to control the type of inhabitants is no longer considered coextensive with the right of a homeowner to regulate the conduct of his guests."
- ▶ "Segregation will continue when there is segregation in neigh borhoods—in fact the latter may even become the new vehicle for achieving indirectly the school segregation which the courts have outlawed directly."
- Negro advancement groups can easily stir up so much antagonism by pressing for reform legislation too soon that battles are lost which might have been won later. Moreover, "tyranny is as unjust when practiced by the minority in the enactment of laws in which the majority does not yet believe as it is when the majority imposes laws by which the minority is to be oppressed. If protection of civil rights must depend on authoritative procedures or

(continued on p. 210)









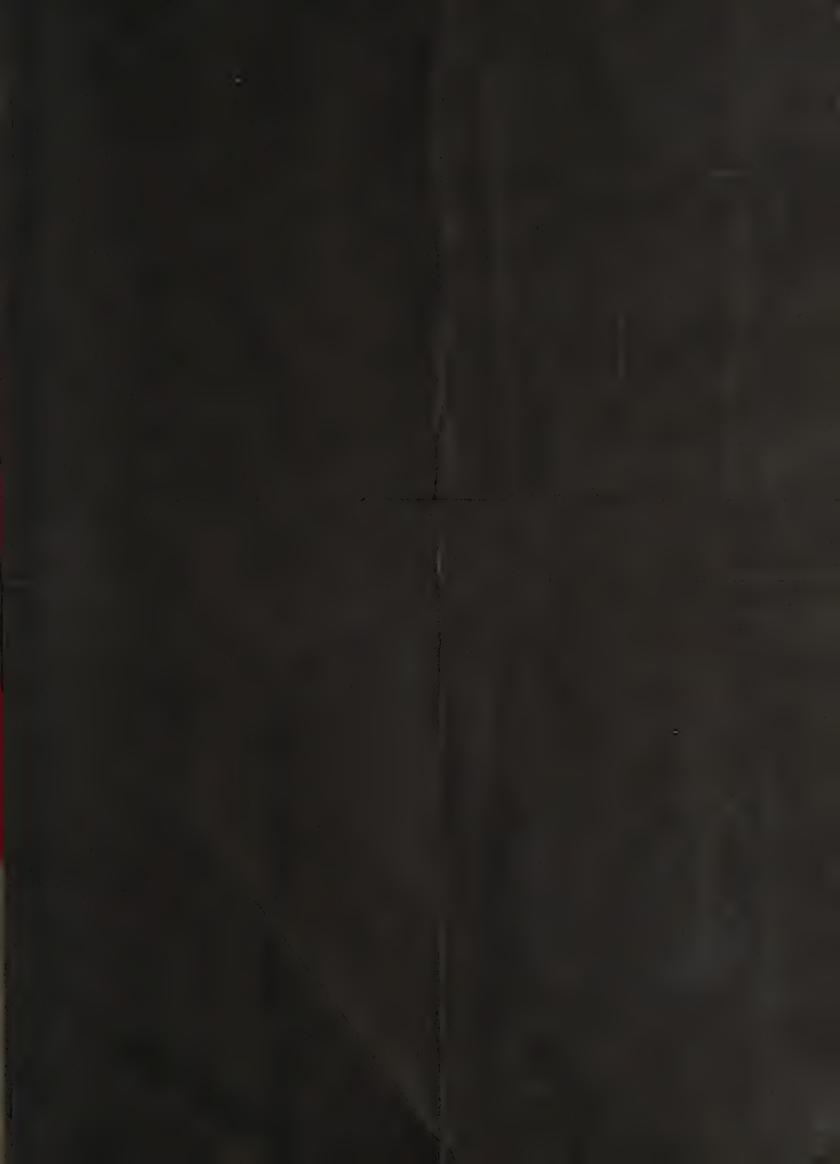


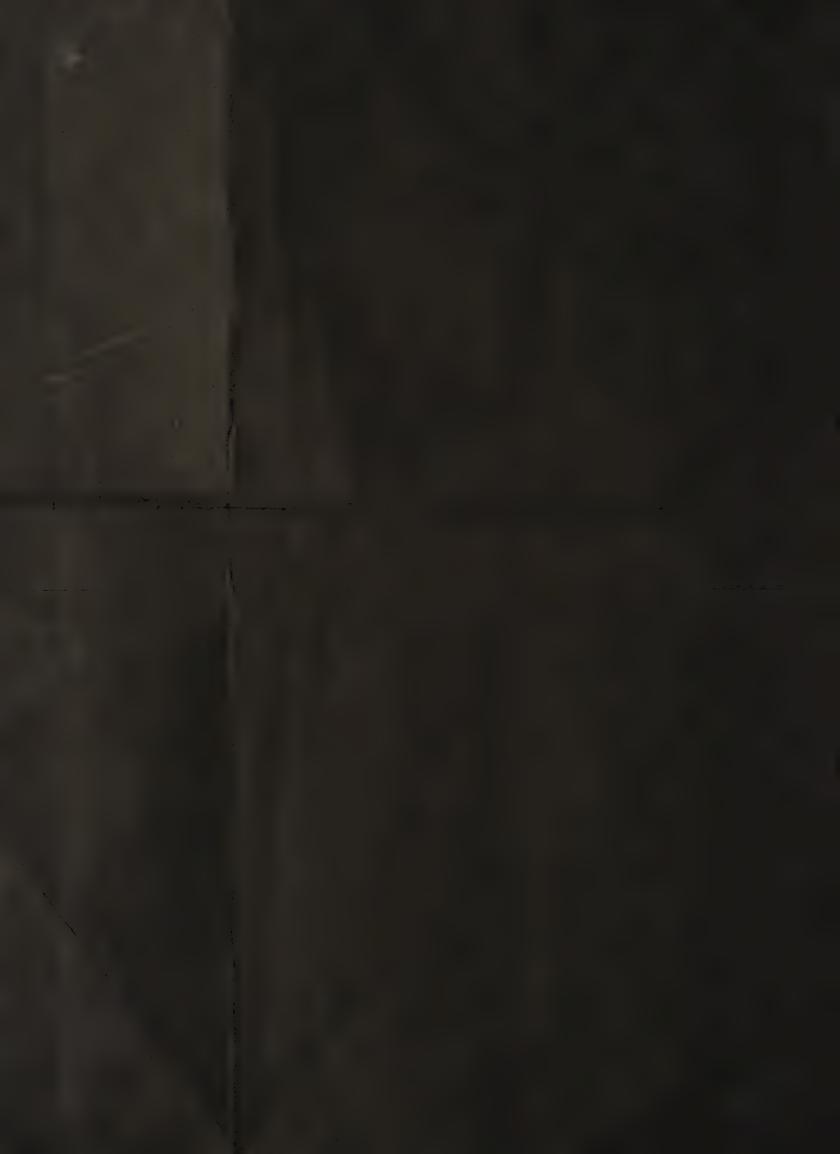
Poland-born Charles Abrams was on the Gold Coast of Africa when a cable caught up with him telling of his appointment as New York State rent control administrator. He was abroad at the behest of the United Nations to do a job he has not yet been called on to do for his adopted country: write a housing program.

Writing about housing programs is a longtime preoccupation of 54-year-old Lawyer Abrams. A former columnist for the New York Post, and a frequent contributor to national magazines, he is the author of The Future of Housing (1946) and Revolution in Land (1939). Critic Lewis Mumford called the latter "the first really important book on the subject since Henry George." Before his new state job took up all his time, Abrams

also found time to lecture frequently at the New School for Social Research, the University of Pennsylvania, City College of New York and MIT. He has not had time lately for his hobby: chess.

Abrams' UN work began with a monumental study of the world's urban land problems, published in 1953. In the last 13 months, he has traveled 13,000 miles on two UN missions. The first one took him to Hongkong, Japan and India where he conducted a housing seminar for experts from 16 nations. The second took him not only to Africa but also to England for a ten-day conference on African problems and then to Turkey where he was instrumental in persuading the government to set up a new school of architecture which the University of Pennsylvania will help run.







Bucks County, Pa. gets its first

INTERRACIAL SUBDIVISION

Quaker-sponsored project expects to become half Negro-, half-white occupied.

Chief problem:

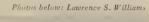
finding enough white customers

"Our problem—we don't want to kid anybody—is finding white purchasers."

The speaker was Morris Milgram, executive vice president of Concord Park Homes, a handsome development of 140 ranch houses about a mile from the northern edge of Philadelphia. It is the first postwar interracial subdivision in suburban Bucks County, where, in common with most other metropolitan suburbs, the postwar housing boom has heretofore been all-white.

Milgram was talking to four couples—two Negro, two white—who are among Concord Park's first customers. They were having a get-acquainted tea last month, as new neighbors will, at the home of Mr. and Mrs. George Grier, first to move into what its sponsors as well as many a housing official hope may become a history-making project—a demonstration to the nation and the world that ethnic segregation is a dying shibboleth and that whites and Negroes can live together as well as anybody else.

If the friendly rapport so visible at the Grier's afternoon tea (continued on p. 186)

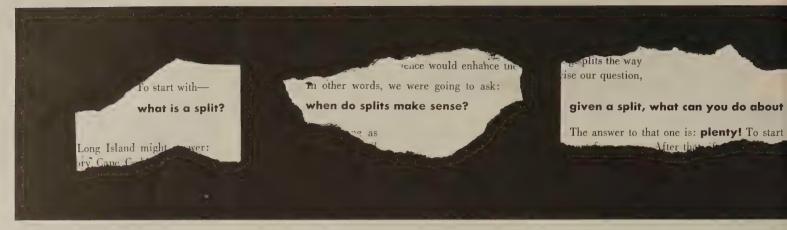




Three-bedroom, one-bath house (1,400 sq. ft.) sells for \$11,990, has \$12,000 FHA valuation



LOCATION: Trevose, Pa.
CONCORD PARK HOMES, INC., builder
WILLIAM H. ROBERTS, architect
BEATRICE WEST, color stylist
A. C. LAMPEL, sales agent



An analysis of split-level anatomy H&H made a year ago pointed out the worst problems split levels posed

House & Home helped design

Cortlandt Hubbard



Builder Arters



Architect Hay

Prize-winning builder-architect team of Wallace "Bud"
Arters and George Hay won NAHB neighborhood merit
award three years running, a <u>House & Garden</u> regional
color award, built the 1955 Philadelphia Home Show house
and will be published in a forthcoming issue of <u>Better</u>
Homes & Gardens. Their current prize-winning community is Riddlewood in rolling Pennsylvania country.
Here they solved one of the most murderous design problems of today; how to design a good split level. Hay's
first step: "Disarm the two struggling split elements."

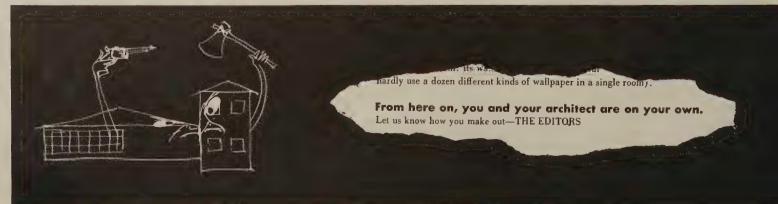
Advice is cheap. And good advice can pay off in a big way. Here's an example:

As the wave of split-level popularity swept westward from Long Island to eastern Pennsylvania, Media Builder Bud Arters decided it was high time he built splits. That was just one year ago. Both Arters and his architect, George Hay, had seen the April issue of House & Home (fragments above and below) and both agreed: "If we built a split-level house, we certainly would avoid the worst mistakes the article pointed up." They took every bit of advice they read. Result:

- A good-looking split level that is a plus rather than a minus to a prize-winning community.
- A sensible split that makes a housewife's life easier.
- An economical split (less than \$9 per sq. ft.) that cashes in on the economy inherent in tucking garage under the house—"no cheaper way of fitting one into a house so nicely," says Arters
- A fast-selling split with a sales record of 12 in ten days. Arters sold 30 all together, plans 50 more—with a minimum of \$2,500 down!

The moral of this story is simply an addition to what we said a year ago: "Hire a good architect." It really pays.

"A one-story ranch house and a two-story Cape Codder locked in mortal combat," H&H sadly characterized the worst splits

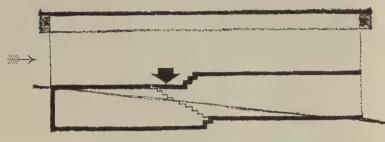




a new split level

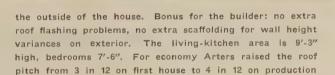


Step No. 1. Put splits on hillsides "That's where they belong," says Hay. "This split solves the site problem for more than a flat potato-field tract." Arters says: "Site is the dictator for split levels. Our split is designed par-



ticularly for uphill-from-the-street lots and can be built on grades up to 20%." Instead of putting the living-kitchendining area midway between bedrooms and recreation room (six steps up, six steps down), Hay literally split the difference, put only three steps up to the bedrooms, nine steps down to the recreation room. "This takes the housewife out of limbo and puts her more on one floor. She needn't feel like the woman in your article who was halfway up and halfway down but never anywhere in particular. Since she goes to the bedrooms more than to the recreation area she has only three steps to climb. Children who use the recreation room more can climb the greater number of steps easier."

Step No. 2. Simplify the roof. "That's the first thing I insisted on," says Arters. In place of the roofs butting each other as in the general run of splits, Hay designed one simple, attractive low pitch that brought the living-kitchen and bedroom areas into immediate harmony on



model since it needs no double underlay.

Step No. 3. Unsplit the facade. Method: "Panelization. It's mandatory for splits," says Arters, "otherwise the framing is murder and scaffolding for different height becomes a



bugaboo. It's best to build panels on the upper platform or have them shipped to the site completely assembled and ready for tilting." Hay's panel pattern, emphasized by battens, creates an even rhythm across the facade.

Step No. 4. Don't alternate splits with other kinds of houses. Says Arters, "They group naturally on rolling sites which



don't hunch up and down naturally. We can group 12 to 15 and get our variations through color and angling the houses slightly." For a closeup of the streetscape turn the page.

Photo: Cortlandt Hubbard



This split has refinements in design, less space

Sloping ceilings under 3 in 12 pitch roof Wide overhangs over both gable ends Stiding sash in garage window Sliding window wall in dining area Glass following roof rake in living room and 1,251 sq. ft. of living space

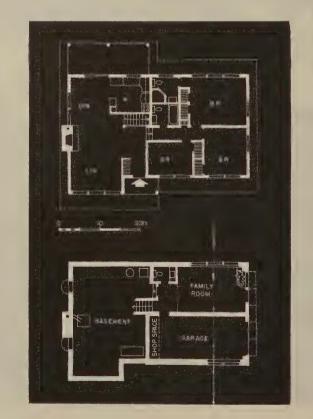
The low, 3 in 12 pitch, wide overhangs on gable ends of the house above make it look bigger than it actually is. Yet the 4' added to the depth of the model at right with the 4 in 12 pitched roof gives it 176 more sq. ft. of living area.

After trying a host of design refinements on his first split level (see list above), Arters decided to build the bigger house as his production model. His reasons:

- 1. VA and mortgage lenders give more credit for actual space.
- 2. Tradesmen won't be bothered with techniques necessary to get refinements.
- 3. Optical illusions alone won't sell a space-hungry public.

"My aim now," says Arters, "is to get space first and then shoot for refinements." On the next page he lists the difficulties involved in the "refined" split (above) and how he hopes to lick them in the bigger house (opposite).

ARTERS BROS., builders GEORGE HAY, architect MIDDLETOWN REALTY, sales agent WM. H. YOUNG CO., supplier QUAKER CITY FEDERAL, financing LOCATION: Middletown Township, Pa. PRICE: \$17,500 (both models) TERMS: minimum \$2,500 down





This split has added space, fewer refinements

Flat ceilings in all rooms under 4 in 12 pitch No overhangs on gable ends Fixed sash in garage window Window and door in dining area All rectangular fenestration in living room and 1,427 sq. ft. of living space

Difficulty: "Carpenters object to varying stud heights under sloping ceilings, plasterers balk about several scaffolds."

Cure: "Build partitions as simple rectangles, fill in the rake with cripples. Get plasterers anxious to cooperate by pointing out the greater plastered area."

Difficulty: "Wide overhangs on gable ends necessitate special scaffolding."

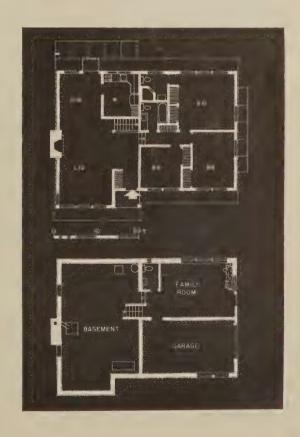
Cure: "Use structural roof decking and a shingle that could be stapled on a 2 in 12 pitch roof."

Difficulty: "Sliding garage sash is costly."

Cure: "Use fixed sash; door to ventilate the garage."

Difficulty: "Sliding window wall is expensive." Glass following the roof rake just costs more.

Cure: "The price has come down already."





Front fences were a shock to neighbors at first but add privacy and livability to glass-walled houses. A white roof of marble chips on a 2" poured lightweight cement roof deck over 1" wood planks, 2' wide, 8' long, is reported to cost 20¢ less per sq. ft. than conventional roofing. House was designed for air conditioning and has almost no east or west windows.

Yes, if they face south:
they won't overload air conditioning
in summer
and they will let in sun heat
in winter.
But you need a fence for privacy

LOCATION: Memphis, Tenn.
CHATHAM HUNTER, builder
JAMES H. PERRELL, ROBERT J. PERRELL,
RICHARD C. PERRELL, architects
SMILOW-THIELLE, New York City, decorators
Sales price: \$36,000

Should glass walls face

These houses break the first rule about glass walls.

While architects and editors insist that "picture windows" and glass walls should not face the street, here are three houses that break this rule but still make sense. The 30' long glass walls face south, keep the houses bright and cheerful the year round. In winter they let in solar heat. In summer double-glazed, fixed sash under 4' wide overhangs provide a view of the enclosed front yard, yet let in so little heat that a 3-hp heat pump cools 2,000 sq. ft. of enclosed space.

The houses broke with Memphis tradition because they were contemporary. But they were an added shock to conservative neighbors because they were put far back on their lots and had privacy fences in front.

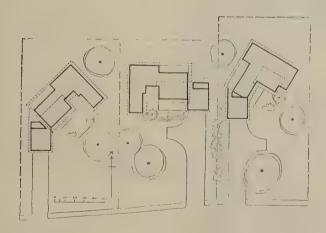
Builder Chatham Hunter opened the houses in February with such a burst of newspaper publicity that he attracted more visitors than he could handle. "About 80% liked the houses," says Hunter, "but the designs are a curiosity and people don't know what to think. They keep coming back. Houses at \$36,000 like these often take four to six months to sell here. I haven't sold them yet but I'm not worried. In fact, I'm building one more now and want to do a group of them." Some may sell for around \$22,000.

From these houses the architects got commissions for four custom designs of the same type, are delighted that Builder Hunter is convinced there is a market for contemporary design in Memphis.

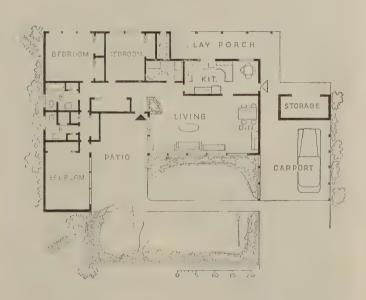


Visitors came from 100 miles away to see these new houses. "Country people liked them better than city people did," says Builder Hunter. "The design is really new here, but peeople are beginning to understand them better now."

the street?



On lots 100' x 170', the houses were put within 26' of the rear line. Front fences are about 50' from the curb. The three houses were designed as a group, each has privacy from its neighbors as they are set at a slight angle, and there are no major side windows. Fences and about \$600 in landscaping are part of the sales price.



Space under roof is 3,300 sq. ft., with 2,000 sq. ft. enclosed. Large kitchen has a separate dining area, is equipped with built-in range, two ovens, dishwasher, garbage disposer and furnished model had a washer, drier, refrigerator and freezer. In model, one of the three bedrooms was furnished as a study. Living-dining area is 30' x 15'.

For more about these houses turn to p. 233

Look what hot-water heat is doing to meet hot-air competition

Recent research and better engineering make possible:

- 1. Smaller boilers
- 2. Smaller radiators
- 3. Smaller pipes
- 4. More accurate heat loss calculations

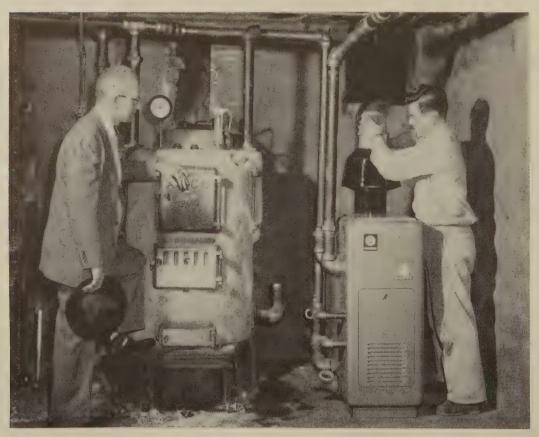
The hot-water heating industry is running scared.

This is because its big rival—warm-air heat—has grabbed the lion's share of the house heating business. Although hot-water boiler sales ran neck and neck with warm-air furnaces before the war, in recent years warm air has taken over 65% to 75% of the market.

Several years ago the hot-water heat boys launched a program to recoup. For one thing, they greatly expanded research budgets, especially at their pioneering test house at the University of Illinois. For another, the IBR (Institute of Boiler & Radiator Manufacturers) went to work on new ways to install hot-water heat at sharply reduced prices.

As a result, one of the biggest cost cutters is the use of hotter water. New systems supply 210° to 225° instead of the usual 170° . This means higher efficiency, faster pickup and, most important, radiators or convectors can be as much as 40% smaller. Savings range up to 10% of the heating job—over \$100 saved on a \$20.000 house.

There are also a variety of other significant developments, including the combination of hot-water heat with cooling and new ideas in snow melting, as shown on the following pages.



1. Boilers are smaller

Chief reason for sharply reduced boiler size (see left) is a more efficient combustion chamber with the use of heating "baffles." But performance is guaranteed only when builders buy cast-iron boilers stamped with the approved IBR (Institute of Boiler & Radiator Mfrs.) rating or steel boilers with an SBI (Steel Boiler Institute) rating. The heating industry is also emphasizing indirect domestic hot-water heaters built into the boiler, and thus eliminating the need for a separate domestic hot-water heater.



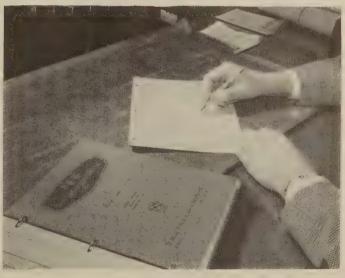




2. Radiators are smaller

Compared with the old-fashioned iron model, (above, left) the new convectors are indeed smaller. But besides the usual wall convectors recessed behind metal cabinets, the big news in radiators is the sharp sales spurt in the baseboard type (above). Starting from scratch, when they were introduced in 1946, baseboards now account for an estimated 50% of all radiator sales. And chiefly because of hotter water temperatures and flexible tubing, a complete baseboard system can now be fully installed in a house in less than 36 hours.

Photos below, opposite page. Nat'l News & Illus. Service

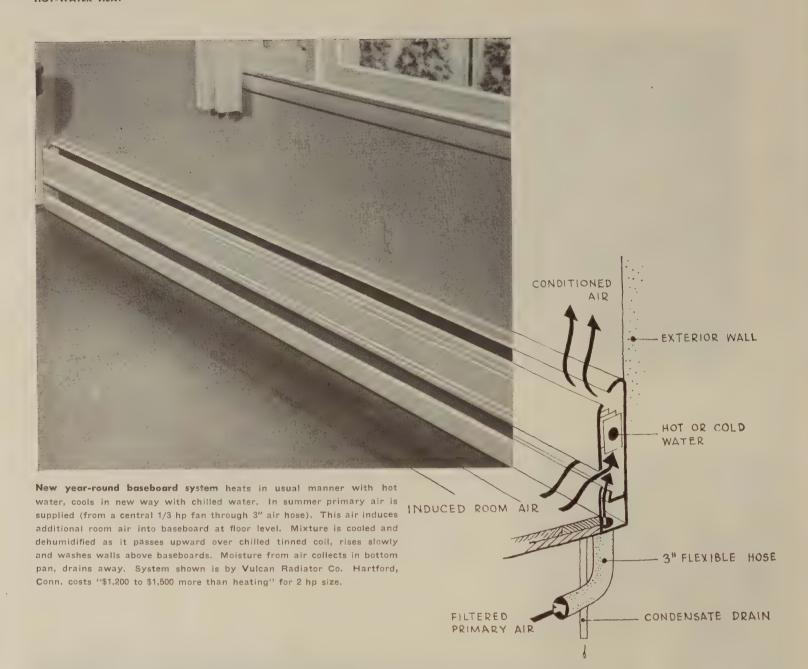


3. Pipes are smaller

They are smaller chiefly because flexible tubing has been introduced for pipe risers and branch takeoffs. (Heavy pipe is only needed for main boiler connections.) The new tubing, as small as 1/2" to 3/4" in diameter, can be bent around corners, snaked through walls and partitions. Eliminated are such fittings as elbows and tees, formerly carted to every job. Eliminated also are threaded joints because tubing is "sweat-connected." This all means faster installation at lower costs, especially in remodeling.

4. Heat loss calculations are more accurate

A new method of figuring the right size unit for every house is being urged on dealers. Industry engineers found rule-of-thumb methods a major cause of oversized heating systems and thus "overpriced" bids to builders. Many a house got enough capacity for two houses. So a new heat-loss form was engineered by the IBR and special classes are being held across the nation to bring installers up to date. This crash program is paying off: properly-sized boilers combined with the other cost-cutting developments mentioned above result in over-all savings as high as 50%.

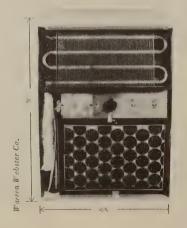


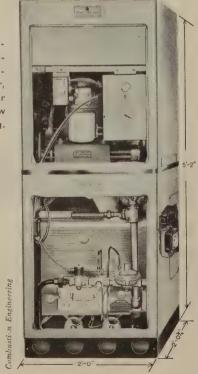
Now you can use chilled water for summer cooling . . .

Perhaps the biggest new development in hot-water heat is packaged equipment that both heats and cools. Thus air conditioning is now possible for the first time with boilers and chillers combined in a single unit designed especially for houses. Either hot or chilled water is circulated through insulated pipes to a variety of new types of year-round convectors, also designed especially for houses. Some models are small enough to be recessed in a wall between two studs. And one new system uses a baseboard unit for both heating and cooling, as shown above.

What does it cost? Total installed prices for liquid cooling systems are hard to pin down because the equipment is so new. Some firms say a 2-hp year-round airconditioning system with water can be installed in \$20,000 houses for as little as \$1,850. Others say installed costs may be 20% higher than the cost of home air conditioning with warm-air heat. But they predict that prices will gradually come down as production goes up.

New packaged units include boilerchiller combination, right, and recessed room convector, below. Convector uses fan to draw in room air, which is filtered and either heated or cooled. For details on various new brands see New Products, p. 162 et seq.







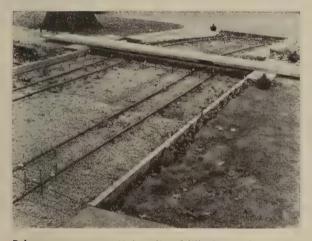
Before. Driveway of USG house by Architect Quincy Jones (see p. 112) is 60 ft. long. Boiler capacity for heating house is 90 000 Btuh.



After. Melting system uses regular house boiler, was fully installed for \$300. Operating cost is quoted as "less than 5¢ per hour."

... and hot water for snow melting in winter

How to melt snow



Driveway system at University of Illinois test house uses two 3/4" pipes 12" o.c. under wheel tracks. No insulation is used because of 4" well-drained gravel fill underneath. Concrete was poured 2" under and 2" over top of pipes.



Front walk for same house shows clearly how nonabsorbing metal chairs hold pipes 2" above fill. Metal is used instead of porous material like brick or wood, which would absorb ground moisture and cause pipes to corrode.

Snow melting systems are spreading from the custom to the builder market. The reason: a complete melting system for a 50-ft. driveway can be installed in a house with hot-water heat for as little as \$300 (less for volume builders). Only one boiler is needed and frequently the size of boiler used to heat the house is big enough to melt the snow too. This is because most snowfalls occur at a 26° mean temperature—when most boilers have reserve capacity to melt snow, as well as heat the house.

How it works. Most popular method is a wheel-track system, as shown at left. The pipes form a closed water circuit, independent of the heating, and ethylene glycol is added to prevent freeze-up. The system goes into action only when needed and it can be operated either automatically or manually.

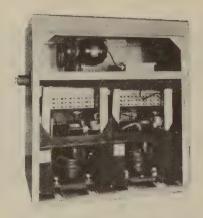
Obviously, the exact price a builder pays will vary according to such factors as length of driveway, type of system and melting capacity. Thus installed prices can range from \$1 per sq. ft. of actual driveway covered up to \$1.50.*

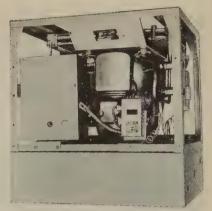
Big sales appeal. Regardless of cost, anybody who has shoveled snow off a seemingly endless drive will appreciate the sales appeal of automatic melting. Heating manufacturers also point out that shoveling snow is a man-killer, as evidenced by the high death rate from it. This last point alone can be turned into a major sales reason for snow melting.

^{*} A comprehensive 31-page Snow Melting manual giving full details on design and installation is available free from the Committee on Steel Pipe Research, 350 Fifth Ave., New York 1, N. Y.

NEW PRODUCTS







Closed system permits same water to be chilled, circulated, then rechilled. Most units furnish water as cool as 40°, and 8°-10° will be picked up as liquid passes through convectors, cooling the house. Most chillers have water-cooled compressors.

Liquid heating and cooling research pay off in new products





Package units have water chillers mounted in tandem with boilers. Thermostatic controls can switch the system from heating to cooling, or vice versa, in variable weather. Mounted one above the other, units need only 4 sq. ft. or less, floor space.

c. Chilled water systems have long dominated the air conditioning of commercial and industrial buildings, but until recently, equipment was not sized for the residential market. Now chillers of 2- and 3-ton capacity have been linked with appliance-sized boilers (p. 158) to provide complete packages that take up as little as 3.2 sq. ft. of floor space.

Chillers are designed for installation over, under, or alongside the boiler, and may be added to existing systems if desired. Most are water cooled, and require an evaporative tower outside for water conservation. Units are completely self-contained (include compressor, condenser and evaporator) and need no assembly on the job.

Boilers may be either oil or gas fired, and sized to fit the radiation requirements of the system. All chillers shown here are water-cooled systems (cooling towers) except the Brown, which is air cooled.

When boilers are to furnish household hot water during the summer, piping is in parallel, so that chilled water does not pass through the boiler on its way to convectors. Wintersummer thermostats control both gas solenoid and refrigerator compressor through a relay.

Manufacturers: (of units shown):

Brown Products Co.

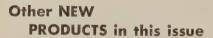
97-12 Metropolitan Ave. Forest Hills, L.I., N.Y.

Combustion
Engineering, Inc.
911 W. Main St.
Chattanooga 1, Tenn.

Hydrotherm, Inc. Northvale, N.J.

American Radiator & Standard Sanitary 50 W. 40th St. New York 18, N.Y.

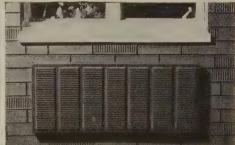
continued on p. 224











Electric baseboard heaters......p. 250 foamed plastic insulation, p 236 smaller heat pump, p. 258 nonprotruding room conditioner.....p. 240







• Electronic Air Cleaner (above) removes 90% of all airborne dust, dirt, pollen, provides most healthful air ever to enter the home . . . considerably reduces cleaning, dusting, redecorating.



HEATING-COOLING UNIT

- Cools entire house.
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Samples from the U. S. Bureau of Standards "Blackness Test", in which a PRECIPITRON and a standard air conditioning filter were tested side by side for air cleaning efficiency.

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You're invited to have a look at the Westinghouse "6-Step Plan to Speed Home Sales"



To help make your homes more salable, Westinghouse has prepared a package of new and practical merchandising ideas. This kit goes to work for you when your homes are air-conditioned with Westinghouse, and highlights the many benefits of year-round comfort.

This package consists of booklets to help you plan a complete promotion program... a booklet to help sell prospects... new ideas on point-of-sale display... selling aids for your salesmen—even a complete newspaper publicity program.

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Staunton, Virginia

- ☐ I'd like to have a look at "6-Step Plan to Speed Home Sales".
- ☐ I'd like to know more about the Westinghouse PRECIPITRON, Heating-Cooling Unit Combination.

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Eric Kaiyer, Architect • Photos: Rudolph Leppert

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LETTERS

OPEN LETTER

Sirs:

Your Open letter to the President on behalf of the homebuilding industry (Jan. issue) sets forth our views as a supplier to this important industry in very complete and adequate form.

Owens-Corning Fiberglas has a large stake in all phases of the homebuilding program. We have a real interest in the FHA and VA appraisal attitudes because these agencies should encourage and foster quality housing.

FHA and VA should be flexible enough to change with this changing industry and accept good new construction methods that offer lower costs and new or improved materials that offer better properties at a fair cost. To accomplish these things, they must be staffed with able people free to move within the limits of their authority without fear of political censure.

These agencies must take the lead in encouraging adequate maintenance, repair and improvements to save older housing units from decay. They must take the lead in encouraging the construction of adequate low-cost housing.

With this leadership by government untrammeled by party politics, much can be done to improve the standard of living in this country.

HAROLD BOESCHENSTEIN, president Owens-Corning Fiberglas Corp. Toledo

Sire.

May I compliment you on the straightforward way you state certain truths about the housing picture in your *Open letter to the President?* Your approach should produce beneficial results.

ADRIAN WILSON, AIA
Los Angeles

Sirs:

If Nebraskan Senators and Congressmen have not been sent copies of your *Open letter* to the *President*, I would appreciate your sending me eight copies, so that I may forward them on behalf of our association,

FRED HESS, executive secretary Omaha Home Builders Assn.

Sire

. . . Excellent.

In Colorado we had an excellent office. Now it's a sick and discouraged office.

Before the Republican politicians took over, I strongly urged that we have a national FHA day in recognition of the outstanding work done by FHA. Now I suggest that we have a national day of mourning for FHA.

JOHN BONFORTE Pueblo, Colo.

continued on p. 171

Sirs:

Last night I read your *Open letter* to President Eisenhower several times. Each time I read it, it impresses me more strongly with its value at this time.

Someone had to say these things in an effective way. There is nothing in the letter with which I do not heartily agree. My only criticism would be that it might be even more vigorous in its tone, but I realize the necessity of keeping it factual and on a high level. I have no doubt that the President will read it and the effect must certainly be beneficial.

Frank W. Cortright, director of builders research

Youngstown Kitchens Warren, Ohio

WITHOUT VA OR FHA

Sirs:

Your recent article (Feb. issue) on how we finance Hadley-Cherry homes has certainly convinced me that you have considerable reader interest among builders and financial institutions. We have had innumerable calls and letters from all over the country requesting more information.

The only inaccuracy in your article was the statement that "An essential feature of the plan is that amortization does not start until eight months after the house is completed and sold." Amortization starts eight months after the loan is recorded. Hadley-Cherry usually have the house completed within 90 days, so this gives them approximately five months of payments before they have to start retiring the principal obligation to us.

This is a good deal for the builder, the borrower and the lending institution, but it requires a high degree of ability on the part of the building firm.

The real secret of its success is the ability of Hadley-Cherry to build this house rapidly. Few builders could duplicate this feat. Any average builder or a borrower on a contract basis would spend at least \$1,000 more to duplicate this house than they are able to buy it for from Hadley-Cherry.

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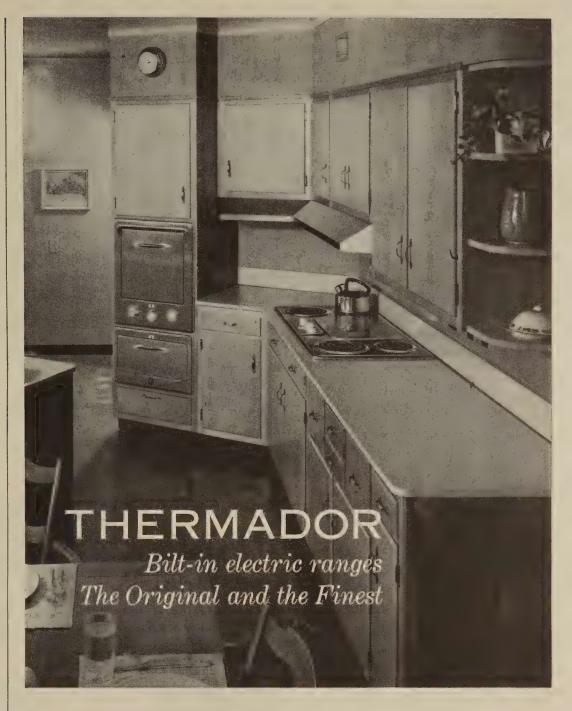
J. HOWARD EDGERTON, president
California Federal Savings and Loan Assn.

Sirs:

I'm a small builder (about five houses a year). The biggest reason we don't build more is because of the large down payment we have to get.

would like to put Hadley-Cherry's plan use.

G. L. Barstow Townsend, Mass. continued on p. 172



Plan your kitchens with THERMADOR Bilt-in units. Choose from 12 COOKING TOPS, with or without the middle griddle or Convertible Duo-Cook. And notice how much storage space you get above and below. The FULLY AUTOMATIC OVENS are easily installed in standard cabinets—at waist level. All units, like the low-cost WARMING DRAWER, are in lifetime, easy-to-clean stainless steel. They blend handsomely with any building material or color.

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Vapor-proof Alfol is applied from continuous 500 sq. ft. rolls, in a way that completely seals off cold wall areas from warm moist room air-preventing harmful condensation. It protects your buildings against peeling paint, cracking plaster, and rotting timbers common in improperly insulated structures.

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No other full-protection insulation can match Alfol's ease of installation. A tough kraft backing bears all application stress, prevents tearing. Applicators love it because it goes in fast and easily. There is no bulk . . . no muss or fuss . . . no irritating dust . . . no excess weight. Alfol





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weighs only 1/12 as much as its bulk type "equivalent", and requires only 1/20 the storage space. Your money buys less overhead . . . less labor . . . more and better insulation.

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There is a type of Alfol to meet every insulation need, including exposed ceiling jobs for industrial plants and insulation of



Write today! for this illustrated bulletin giving full details - learn why thousands of builders enthusiastically

installing Alfol in their current buildings, to



LETTERS continued from p. 171

Sirs

Already we have received many telephone calls and letters from all over the nation as well as Canada from builders and lending institutions expressing a keen interest in this type of operation.

> RAY K. CHERRY, president Hadley-Cherry, Inc. Los Angeles

SOURCE MATERIAL

I was very interested to read that Mr. Farny, who "has borrowed freely from . . . Techbuilt's plans," (Feb. issue, p. 158) seems to have doubled the cost of the house.

It is encouraging to us that the builder who does build the house just as we designed it can do so much better for his customer and, we suspect, himself.

> CARL KOCH, AIA, president Techbuilt Inc. Cambridge, Mass.

DARKNESS AT NOON

Architect Koch (Jan. issue) may or may not be right about draperies being a better insulator than double glazing. But I still don't want to have to pull the draperies and turn on a light to read while the sun is shining brightly outside.

> GEORGE A. DOREN El Cerrito, Calif.

RIGHT NOTE

Sirs:

I was more than pleased with the very nice handling you gave the MPR article (Feb. issue, News). You hit just the right note and certainly were very accurate.

> NEIL A. CONNOR. director Architectural Standards Div.

SELECTIVE SELLING

Is anything being done to discover prospects for new houses on a selective basis? For example, parents of a second or third child presently living in a small home should be good prospects for a somewhat larger one. Has anyone ever tried to "sell" such prospects by direct mail successfully?

A. D. CHERNIAK Windsor, Ont.

WANTED: ONE ISSUE

If the prefab builders can have a complete edition, why can't we "biggest builders" (Jan. issue)?

> HARRY KISSEL Inglewood, Calif. continued on p. 174

Put your windows where you want them



Solve the Sun Problem



By 5 o'clock on a summer afternoon a 3' west overhang will be so nearly useless that an 8' x 12' picture window will let in almost as much heat as it would without the overhang —about 24,000 Btuh.

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LETTERS continued from p. 172

NEEDED IN BOSTON

Sirs

"What a builder gets from an architect" (Feb. issue) should be distributed to HBA members—at least in this area.

JAN REINER, architect
Boston

JOB RECOGNIZED

Sirs.

A very nice story on Somerville (Feb. issue, News). I was glad you gave credit to Ralph Taylor and Alan McClennen. They have done a terrific job.

William L. Slayton, assistant director National Assn. of Housing and Redevelopment Officials Washington, D. C.

NEVER UNDERESTIMATE . . .

Sirs:

As a housewife, I'd like to make some suggestions:

Why do so many house plans have traffic routes through the kitchen?

Have you ever turned from a hot stove to pour boiling liquid down a sink and found yourself in the path of two racing children? Have you ever had a husband unload the car through your work space? How much more sensible it would be to design kitchens so that through traffic cannot cross any lines between the main appliances!

This principle often gets lip service. But the vast majority of plans seem to ignore it.

JESSIE LLOYD O'CONNOR Little Compton, R. I.

CALIFORNIA TO MINNESOTA

Sirs

House & Home is the best.

We would like to get more information on the Terra Linda development (Sept. issue) for possible building in Minnesota.

MRS. R. C. LONG
Olmsted & Foley
Minneapolis

PRICELESS

Sirs.

HOUSE & HOME is of extraordinary value to

I am everlastingly grateful for the priceless information it brings to my desk every month.

J. J. KLEIN, manager Homes Division Illinois Lumber Manufacturing Co. Cairo, Ill.

INVALUABLE

Sirs:

As a newcomer to the building business I have found your magazine invaluable on methods of construction and materials.

JOHN J. DYER Royal Oak, Mich.

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The "custom-look" at a production line price!

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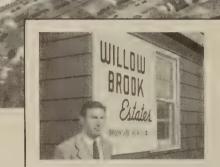
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Herbert Gold, President Malverne Acres, Inc. West Hempstead, N. Y.

You too can sell more homes by using Mr. Gold's strategy! Build your sales talk right into each home by installing an R&M "Package" Attic Fan. It's a complete, dependable home-cooling system. On hot summer days and nights it drives out hot, humid air...pulls in fresh, cooling breezes. An R&M Attic Fan is the extra value, the extra comfort today's home-buyer demands. It means years of cool summer comfort. And for the "sell" it adds, its cost is low indeed!

Fits low attics and all standard hallways. The smallest unit needs only 18" of attic clearance; the largest but 25". Perfect for "moderns" with limited attic clearance. Quiet, too. Moving parts are rubber-mounted, sound-insulated. Fan and motor have factory-lubricated, sealed ball bearings. Fan guaranteed five years; motor and shutter, one year. Certified air deliveries are 5000 and 7000 CFM. 10500 and 16000 CFM sizes are also available. Send the coupon for details.

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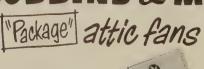


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REVIEWS

Five experts spell out a research plan for ACTION, pinpoint what we need to learn about fighting bligh

URBAN RENEWAL RESEARCH PROGRAM. America Council To Improve Our Neighborhoods, Box 462 Radio City Sta., New York 20, N.Y. Summary, \$5 Full report, \$10

Last August, the then-embryo Americal Council To Improve Our Neighborhood (ACTION) handed five top-flight experts of housing problems \$20,000. Their assignment to chart a research program for the counci which would 1) help it decide how to serve the burgeoning national urban renewal program and 2) define the dark corners of this fantastically complex process where more research might shed needed light.

The resulting volumes—there is a third volume of bibliography, too—constitute the mos ambitious compilation yet of what thousand of experts across the nation are going to need to know before urban renewal can be broadly translated from a dream to reality. These amont books for beginners at urban renewal, rehabilitation and conservation. But they are probably "must" reading for the still regret tably small handful of people who try to keep well posted on the subject.

The five researchers* under chairmanship of Reginald Isaacs, professor of regional planning at Harvard University, named 25 topics as worth study during the next few years to learn how to do a better job of using all the available tools to fight the spread of blight in US cities. They outlined another 33 subjects for later investigation.

Why is so much fresh inquiry needed into a subject with which housers have been grap pling (however ineffectively) since the start of the century? The researchers give this an swer: "It is not difficult to visualize the reaction of the American people to ACTION's extensive promotional program, if it should develop that the policies and programs it advocates, when put to the test of practicality cannot be made to work." (The book does no say so, but many housing leaders fear if urbar renewal fails the result will be a wave of public housing, submerging private industry.)

The 25 subjects suggested for immediate inquiry represent "major problem" areas of renewal. Some of the most important ones:

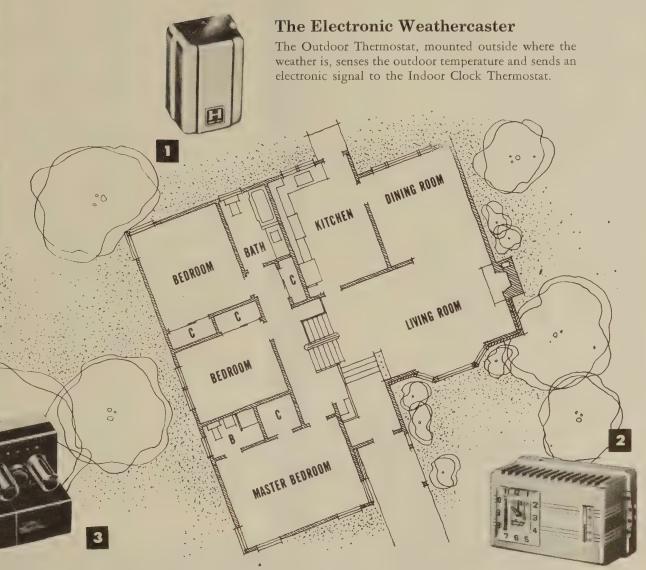
- 1. What should the role of citizens' groups be? How have such movements been born how are they financed, what influence can they wield most effectively?
- **2.** When is a structure too deteriorated to be economically suited for rehabilitation?

(continued on p. 220)

^{*} The others: Walter Blucher, former director of the American Society of Planning Officials; Martin Meyerson, associate professor of land and city planning at the University of Pennsylvania (who subsequently become ACTION research director); John M. Ducey of Real Estate Research Corp. of Chicago; and Jack M. Siegel, counsel to Chicago's Metropolitan Housing and Planning Council.

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Electronic Control Center

The Electronic Relay, mounted in the utility room or basement, receives signals from the Indoor Clock Thermostat. Then it automatically adjusts the heating or cooling plant to keep the house at the right temperature—no matter what the weather.

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Interracial board of directors—six white, three Negro—directs Concord Park project. In a huddle outside a Quaker meeting house (I to r): Dr. Nathaniel Duff, Philadelphia physician who is vice president; George E. Otto, president; Morris Milgram, executive vice president.

"... open occupancy requires the best house in the area ..."

was a good indication, the prospects for Concord Park's success seem bright. Getting it that way, however, had been no easy job.

Milgram, 38, a second generation member of the Philadelphia building firm of Smelo-Milgram, Inc., had long been concerned over the trend toward leaving city housing to minorities while the suburbs become the exclusive domain of whites. (Up to the end of 1953, he figures, only 347 new homes in the nine-county metropolitan Philadelphia area had been open to nonwhite buyers.) In 1952, Milgram began organizing a pool of risk capital to back open occupancy. He was joined by George E. Otto, 51, of Newtown, a leader in the Society of Friends and head of a construction company with 20 years' experience in community development. They formed a corporation of more than 65 persons, mostly Quakers, who oversubscribed the \$100,000 capital stock issue. Recalls Otto: "I had a wonderful time giving Friends and friends the opportunity of putting their money where beliefs were."

Late in 1953, the corporation bought 50 acres of truck farm land. The site, as sites for minority housing should be, was picked to avoid community antagonism. Otto calls it "an enclave to itself." It is bounded chiefly by the Pennsylvania Turnpike, the Baltimore & Ohio railroad, open land, a cemetery, and a small group of homes that has been Negro-occupied for two decades. "We've had some mild kicks from people in Trevose," Otto says, "but they've been much milder than if the development was across the street from them." Adds Milgram: "It was the only site I could find in Bucks County on a bus line"—which means commuting should be easy.

Early customers at Griers' tea: Francis Saxton, Charles Henry, hostess Eunice Grier. Henry, 47, is a machine operator. He moved from a Philadelphia block which has lately ended a transition from white to Negro occupied.

Even with a site so carefully chosen to minimize community resistance, Concord Park spent 17 months and \$17,000 finding mortgage money. Some lending institutions which had promised financing backed out or were downright cold to the idea. Finally, Eastern Mortgage Service Co. agreed to warehouse a dozen loans, says Milgram. Bowery Savings Bank took 29. And People's Natl. Bank & Trust Co. of Langhorne (Pa.) provided funds "so we could go ahead." Some of the financing, says Milgram, was at par, some for a "modest" discount of 1½ points. Best of all. he has 100% VA loans (but with \$600 closing costs).

Where would the buyers come from? The market pressure of home-seeking Negroes is so great that the usual fate of so-called "open occupancy" projects is to wind up nearly 100% Negro. Otto and Milgram were determined this should not happen to Concord Park. Milgram arranged for a study by s'udents at Haverford College. Some 12.000 questionnaires were mailed. The 1.000 returns have not yet been fully analyzed, but Milgram reports some fascinating correlations between general social-political beliefs and acceptability of integrated housing:

- Among names on so-called "liberal" lists, 66% said they believe in open occupancy and would move into such a tract if convenient.
- Among members of "peace organizations" (i.e. pacifists), over 90% endorsed open occupancy.
- Among people picked from suburban telephone books, only 15% believed in open occupancy. Only 10% of phone book names inside Philadelphia endorse it. A third of Levittowners were for it
- White-collar people are perhaps twice as ready as blue-collar people to accept open occupancy.

One upshot was that 25,000 pieces of direct mail advertising were sent to members of church and civic groups on record in favor of democracy in housing. But the result, so far, has been only one sale to a white family.

George Grier, the first to move in, says some potential buyers have been "inhibited by fear." One prospect, he recalls, was a former coworker at Franklin Institute (where Grier is a research psychologist). "He was afraid he would cut himself off from pay raises and promotions if he moved into Concord Park—because his superiors were pretty conservative people." Another prospect, says Grier, was willing to move in, but his Spanish wife was timid about it and so the deal fell through. Milgram recalls a lawyer who declined to move in "because he would lose face with his clients."

The problem, philosophizes Milgram, is that "nobody [among whites] wants to be first" in open occupancy. Fortunately, there are a few exceptions. As first-buyer Grier told a group at the project's dedication last November, he and his wife, Eunice, moved in "to put our beliefs into action." Another white buyer, Francis Saxton, a 28-year-old arc welder who recently completed a hitch as a Navy patrol bomber crewman, tells why he picked Concord Park in these terms: "I like the section. It's a beautiful home. I like the neighbors." His wife, Emma, who is a receptionist for a Negro physician who is on the project's board of directors, explains her views on integration this way: "It doesn't make any difference at all."

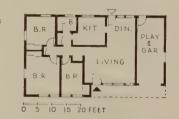
Most of Concord Park's white buyers have been attracted by personal contact and word of mouth. There are enough of them so Otto and Milgram think they have won their battle to produce an interracial tract. In the first section of 29 homes, currently nearing completion, occupancy will be about 55% white. In all, some 73 buyers have put down deposits. There would be more, but adverse credit reports have taken a "very heavy" toll of would-be Negro purchasers.

If hard work and determination can put open occupancy over, Concord Park will click. But its problems have been formidable enough to suggest that few builders elsewhere are likely to tackle open occupancy subdivisions now. The extra headaches mean less profit, though to dedicated men like George Otto and Morris Milgram this consideration is obviously not paramount.

As William Stansbury, FHA race relations adviser in Philadelphia, observed recently: "Open occupancy requires the best house in the area, almost." And as Milgram said at the Griers' tea: "The average builder is a pretty harassed person. It's hard enough without having to fight for a mixed development. You can't build open occupancy if you're purely interested in making money. But it will get easier as more of it is built."

Floor plan offers big living area, small bedrooms

President Otto (second from right) told customers that to be ready for integration, you must "have the internal fortitude to accept slights without losing your head, without retaliating in kind."







ideas helped develop the good home design

IDEA:

curtain exterior walls with warm air and you can plan more glass area at less building cost

Expansive use of glass emphasizes the airy spaciousness of a four-bedroom home designed by O'Neil Ford. Yet glass costs were kept low because Lennox Perima-flo perimeter heating curtains exterior walls with warm air, making the use of glass in single thickness entirely practical. Efficient Perima-flo diffusers are set into floor at carefully engineered points to provide effective warm air circulation. In addition, Mr. Ford planned for allseason air conditioning to be added later; cooling cabinet is installed ready for the addition of a compact Lennox cooling unit as illustrated. (Installation: two-loop zoned system with twin Lennox GHR-5-95 units.)

Architect: O'Neil Ford, AIA; O'Neil Ford and Associates, San Antonio, Texas. Team-mate Builder: Frank Robertson, San Antonio, Texas.



IDEA:

set Lennox unit off in exterior wall and get freedom of design for interior

In this home by Harris Armstrong, the Lennox furnace is tucked into a utility closet in an outside wall. Access is through weather-tight exterior doors; same space accommodates water, gas and electric meters. Air is conducted from the furnace to a drumtype central plenum buried in the slab foundation, from which extend ducts of glazed sewer tile (another good idea) that make up a radial perimeter system. Adaptability of the compact Lennox unit allowed the designer maximum freedom; outer wall placement, with central foundation plenum, gives maximum living area. (Installation: Lennox Downflo GHR-5-112.)



Architect: Harris Armstrong, AIA, Kirkwood, Mo. Team-mate Builder: D. H. Drummond; Drummond Co., Inc., Kansas City, Mo.

Open-occupancy problem: hardest of all to finance

tributed to segregation, it has been FHA," according to HHFA's Dr. Frank S. Horne.

Currently, open-occupancy advocates are complaining that campaigns for "more Negro housing" threaten to substitute the polished ghetto for the sordid one that is now the lamentable lot of most urban minorities. In mid-March, for example, the Natl. Committee Against Discrimination in Housing staged a one-day conference in Washington to raise an outcry along these lines. Said the conference invitations: "We believe that housing is increasingly becoming today's No. 1 civil rights problem. Since the Supreme Court decisions outlawing segregation in schools certain groups . . . have intensified their campaign for racially defined neighborhoods. If they are successful in establishing this 'shiny new ghetto' pattern throughout the country, American children will continue to go to segregated schools and the significance of the education decisions will have been nullified."

Yet even Dr. Robert Weaver, who is chairman of the Committee Against Discrimination in Housing and a passionate believer in open occupancy, has admitted "the cards are heavily stacked against you" when a builder tries to build some. Not only is it the hardest kind of minority housing to finance, but the vastly greater Negro pressure for new homes can easily lead an open-occupancy project to become almost entirely Negrooccupied. Thus it should surprise no one that the Urban League's able housing director, Reginald Johnson, recently told a conference of FHA race relations officers: "Segregated housing is growing at a faster rate than open-occupancy housing." At the same time, Johnson also reported "signs of growth in the open-occupancy field, too." Some of the evidence:

- In New York, which in 1950 adopted state legislation barring racial discrimination in publicly-aided housing, eight Negro families have moved into the Metropolitan Life Insurance Co.'s hitherto all-white Stuyvesant Town apartment project on Manhattan's lower East side.
- When a Negro Air Force officer, Capt. Virgil A. Daniels, hesitated to move into an apartment he had rented in Waverly, Iowa because of "racial pressure," town residents held a meeting to present Daniels with the keys to the apartment, handed him a petition signed by all residents of the building urging him to become their neighbor. (He did.)
- Some 15% of the nation's public housing projects have become racially integrated, but there have been instances of white families moving out when Negroes were admitted. (Integration, as a rule, is harder to accomplish among lower-class families than in the higher income brackets, experts seem to agree, harder still between minority groups.)
- In Portland, Ore. a 16-unit FHA Sec. 213

"sale" cooperative recently opened on an interracial basis—ten nonwhite and six white families. FHA Commissioner Norman Mason, who has pledged aid from his agency for open-occupancy projects, has called the Willamette Heights co-op "unique in US home construction." Its two- and three-bedroom homes sold for \$7,771 and \$8.357, respectively. Down payments averaged \$350 with 40-year amortization at \$47 and \$49 monthly. Mason said he hoped Willamette Heights would "point the way for other similar projects across the nation."

In Milpitas, Calif. where the Ford Motor Co. has just moved its northern California auto and truck assembly plant, plans were announced for a 268-unit open-occupancy housing development. Builder Joe Kaufmann, former head of a meat packing firm in nearby San Jose, found at first that he faced an extra \$500 in financing charges because occupancy would not be limited to whites. He persuaded the CIO United Auto Workers union to go to bat for him. (President Walter Reuther is a leading backer of racial integration in housing and some 225 Negro workers were involved in Ford's shift to Milpitas from Richmond, 50 mi. away.) The upshot was that Metropolitan Life Insurance Co. agreed to provide mortgage money at its prevailing San Francisco rate. At this point, a Los Angeles insurance firm offered to go 11/2 points better. The houses will sell for \$9.500 and \$10.500.

One of the few

The Milpitas project apparently will become northern California's second interracial development. Corona Park at Stockton, which started 4½ years ago with a majority of white families, is now a mixed community including Mexican-Americans, Negroes, Filipinos and Orientals. At Sacramento, Sun-River Homes Inc. is planning an interracial project of about 200 homes, but the state real estate commission has limited it to accepting reservations, rather than making sales, because it still has unsolved water problems. About a quarter of the 53 families who have signed up for its \$9.995 contemporary homes are white.

Despite such symptoms of social change, what skimpy evidence there is suggests that integration in housing is still too controversial for wide acceptance. In a recent survey, for instance, the social research laboratory of New York City College's sociology department found that 75% of suburban Westchester County residents felt better housing should be made available to nonwhites, but 55% were reluctant to have a nonwhite family next door.

It is perhaps with this in mind that FHA's race relations advisers—themselves Negroes—were given this program last fall by their boss, Dr. George Snowden: 1) concentrate on getting Negro families admitted into existing areas before trying to promote construction of new open-occupancy homes, 2) strive for the maximum amount of building of equal facilities needed by Negroes, 3) work with builders in groups and individually to push new developments free from restrictions.

Spreading transition areas

In the realm of Dr. Snowden's first priority—getting minorities into existing houses in more areas—there are ample signs of progress. In recent years, more and more experts have put forth studies debunking the once widely held notion that property values slide in transition neighborhoods. Now, evidence is accumulating that some city neighborhoods—at least in the North—are ready to accept inmigrant Negroes without fuss.

Herman C. Plummer, Portland, Ore.'s biggest Negro realty broker, told a recent conference there: "Individual nonwhite families are moving with more frequency into established integrated neighborhoods. We are getting an increased number of listings from individual white sellers in established neighborhoods. Some come to us because of an honest effort to aid integration, but some come because they want to get a premium price from Negroes."

Davis McEntire, professor of social welfare at the University of California, interviewed white residents of 16 representative neighborhoods in the San Francisco area where a few minority families had recently moved in. He found the newcomers were generally accepted without fuss or ceremony. "There is no particular antagonism," he commented, "nor is there any particular sympathy for them. They tend to be treated in the same anonymous or impersonal way as any other newcomers in a big city neighborhood." Of the 549 people McEntire and his students questioned, "more than 70% described their initial attitudes toward the newcomers as either favorable or neutral," he reported. "Of the 30% who were unhappy with the new arrivals, the majority said that, nevertheless, they did not consider moving away." Some 150 of the 549 had moved into their present homes after at least one of the nonwhite families.

McEntire did not try to measure changes in property values. But he asked home owners what they *thought* had happened. Their opinions:

 Values increased
 19.0%

 No change
 55.0%

 Declined
 12.5%

 Did not know
 13.5%

"Nearly three-quarters of the people," says McEntire, "did not spontaneously mention in the course of a 20-min. discussion about their neighborhoods that nonwhites had moved in." When the interviewers raised the subject, they were startled to learn that one-quarter of the people did not even know there were Negroes or other minority families nearby.

A similar survey was conducted in Denver under the direction of Charles Gray, a real estate man. It showed that 45% of the 101 home owners who listed their houses for sale "by owner only" in a recent Sunday paper were willing to sell to anyone with the money regardless of race. Five years ago, only 15% had expressed the same willingness.

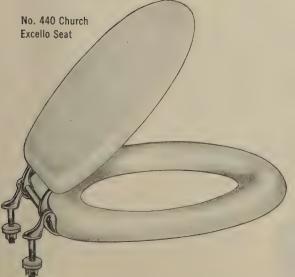
(continued on p. 198)



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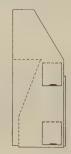
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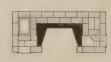
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Integration v. segregation: thoughts from theorists

One question that usually pops up when opening up more existing housing to minoritie is under discussion is this: "What about the landlord who says he is afraid to take in Negroes or Puerto Ricans for fear they'll bring in all their relatives to live with them and throw garbage into the street?" Executive Director Lester Granger of the Urban League thinks such an alibit reflects "lamentable ignorance." He explains: "The landlord who says, 'Now I'll take in Puerto Ricans' frequently drops all his standards and turns to exploitation." The real answer, says Granger is to stick to high standards of tenant selection.

This line of argument, indeed, leads to the reasoning that one reason why racial discrimination exists is, paradoxically, that the nation's white populace has not learned to discriminate.

In its mission of preaching against racial discrimination and for individual discrimination, the Urban League sometimes likens it self to the "State Dept.," whereas the NAACI is the "War Dept." A philosophical comment embedded in a recent research report for the Urban League of Westchester (N.Y.) Count reflects some of this peaceful approach. Segregation, wrote Harold Goldblatt, "is no wall of Jericho to be tumbled by a single, decisive and heroic event. It is, instead, a system of opinions and attitudes and activities [which will] require continuous effort to dissolve."

The comment of a Negro housewife wh recently moved into an open-occupancy project near Philadelphia reveals much of the same thinking. "The law cannot play a decisive pain it," she mused. "Integration will commune when people want it."

Red tape snarls minority redevelopment housing

(continued from p. 143

finger on it, but I simply cannob believe such delay would have continued had not som mastermind been planning it." Merrion think some government planners oppose project because it is a "piecemeal" project entailing mixing new housing with old, at least initially. The planners, he thinks, prefer clearing a bigarea all at once and then building "big."

Late last year, for the second time, lan clearance spokesmen announced that Mer rion's project was about ready to be buil HHFA had finally come through with "final" approval of a capital grant of som \$1.4 million. This will cover two-thirds of th write-down of the land. Last month, Execu tive Secretary Ira G. Bach of the clearance commission said acquisition of the land woul begin "soon." Only remaining hurdles: 1) de tailed building plans for the 100 row hous units (trimmed from 150 in the shuffle) mus yet be agreed upon, 2) sponsors must b found for a number of 12-story units added t the general plan to meet density require ments, 3) the city council must approve clos ing Wabash Ave., one of the thoroughfare cutting through the site. The city council ha a record of hostility to street closings. Yet i it fails to approve this one, the project coul still collapse, said Bach.



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Land scarcity afflicts some of the South, too

duplexes or have other defects, he says.

In Birmingham, Ala. former Builder Aubrey Williams (the onetime National Youth Administrator) recalled some of his land problems. "In 1950-51, we built Honeysuckle Hills -168 houses priced from \$6,800 to \$9,300. We had a lot of trouble getting land. Where we finally built, we had a drainage problem. The houses are on uneven terrain. This added substantially to our costs. But we made some money. I went into these projects to make money. I also wanted to show it was possible to build good Negro housing in the South find responsible buyers and make it go as a pure business deal. We did. The mortgage default on Honeysuckle Hills is less than 1%.

"After Honeysuckle Hills we built St. Marks Village, 68 houses along the same lines. I had intended to build more but I couldn't find the land. There was a good piece of it next to Honeysuckle Hills but there were some scattered white houses on it and I couldn't get the owners to sell, nor could I get the city to make this a Negro housing area. So I stopped."

In Montgomery, Ala. whose 45,000 Negroes comprise about one-third of its population only two sizable Negro developments have gone up since World War II; some 400 units were built in 1950-over the protests of nearby motel operators who said it would hur their business. From 1951 to mid-1954, new Negro dwelling units accounted for 5.36% of

Recently, Jehle Bros., prominent Montgomery contractors, announced plans to put up a 100-home Negro subdivision of \$8,000 to \$15,000 homes on a vacant part of a Negro cemetery. This property lay on what had been, until lately, the extreme east edge of Montgomery. Last summer, an area about a mile further east was subdivided for a low price home development for whites. These new homeowners protested the Jehle Bros plans. School authorities also complained tha the development would interfere with school plans-meaning that Negro children from the subdivision might logically ask to go to a nearby white high school instead of being transported halfway across town to a Negro high school. The upshot: Jehle Bros. aban doned the project. Mayor W. A. Gayle praised "their splendid show of cooperation for the sake of harmony in our community." Says House & Home's Montgomery corre spondent: "There is simply no land left for Negro homes. Negro areas within the city limits are islands surrounded by white neigh borhoods or otherwise contained. On the out skirts, white subdivisions have blossomed in a virtually complete circumference of the city, blocking Negro developments in tha

North and South, the land problem is al ready a bottleneck in supplying minority housing that the building industry can derelatively little to break. Compounded o code and custom, it is a problem for the en tire community. The ironic thing is tha militant Negro pressures for integration in schools seem to be stiffening resistance in many cities to nonsegregated housing areas The problem may grow worse before it get

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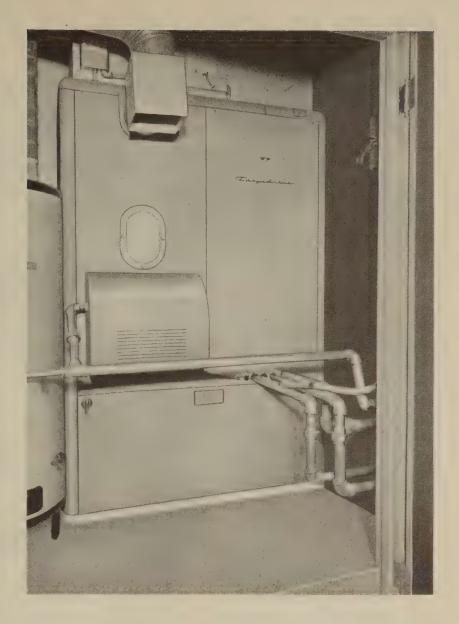
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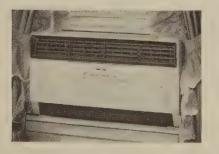
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Charles Abrams offers plan to promote racial integration

laws passed by a few to gain their ends, it simply violates one important right to achieve another. It is a weak prop on which to rest the fight for minority rights."

Where the industry will quarrel most with Abrams' ideas is his 12-point "program for action." Yet it is a program which housers ought not to dismiss lightly. Abrams, who is currently New York State rent control boss, has sometimes been called one of the brains behind public housing. His seven most important proposals:

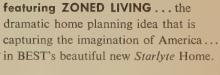
- 1. A long-range housing program including 500,000 public housing units a year-some for sale and some for rent.
- 2. Adequate protection by law of the opportunity to secure shelter. Tread lightly here, Abrams advises.
- 3. An executive policy prohibiting discrimination by FHA, VA and other housing agencies and their beneficiaries. FHA, argues Abrams, "has a 'duty' to ban discrimination by lenders."
- 4. Reduction of slum clearance because there is a shortage of housing in the big cities with the slums. Redevelopment projects should not be approved where builders fail to offer adequate relocation housing to displaced minorities, he contends.
- 5. Adequate land for housing open to minorities. Abrams advocates laws forbidding home buyers to qualify for membership in neighborhood clubs - one of the still workable methods of racial exclusion. US cities, like many in Europe, should buy up reserve land and make it available for minorities. HHFA and its subordinate agencies, he argues, should ban urban renewal aid to areas where obsolete political boundaries bar intelligent land planning that includes more space for minorities.
- 6. Since private lenders "cannot be relied on to meet any portion of the need" for financing, the government should step in with a big direct lending program at interest rates from zero to the "going government rate." FNMA should make more direct loans to open-occupancy co-ops.
- 7. Improved rehabilitation programs and local laws preventing overcrowding. Abrams sees rehabilitation as a "limited tool," but concedes it is important because "the current supply will be the main source of shelter for minorities for a long time."



Minority headline of the year from the New York



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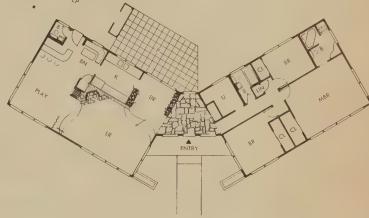




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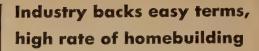
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and FHA interest rates. Joseph A. Kaiser, chairman of the Group Five Savings Banks Assn. in New York, mentioned this at an appraisers' dinner last month. "Rumors persist," he stated, "that a possible reduction in the interest rate of VA-guaranteed and FHA-insured mortgages may be in the wind. A move of such magnitude would certainly go a long way toward appeasing the appetite of investors for government-backed mortgage loans."

Such rumors were perhaps substantiated by a casual remark from a Republican Congressman made to some reporters at a recent Washington dinner. His statement was that "things are being done downtown to take away much of the benefits of the Housing Act of 1954." Newsmen inferred from the brief talk (the man did not elaborate) that whatever the move it was something big and that it would happen soon; also that the Congressman was trying to talk the authorities out of whatever action was contemplated.

Mean temperature? The other side of the picture—built-in controls in the industry—were mentioned by a couple of speakers last month. Banker George Johnson noted that builders dare not build very far ahead of sales because among other reasons, they operate with borrowed money.

Economist George Cline Smith, who called the construction industry "healthy," reminded an ABA convention in New York that "ability to buy—whether it is based on cash position or credit availability—is just a permissive factor. Simply being able to buy something isn't enough—there must be reasons why people buy." This thesis is not exactly one of control, but it at least implies that house purchases are based on something more than easy terms. Smith had his reasons for current demand for single-family houses, among them the cash advantage of owning over renting, the birth rate and the spread of home ownership among older age groups.

What price conventionals? On the crest of the boom, with all federal stops out for easy home buying, came reaction from mortgage men fearful of complete government domination of the market. Writing in The Mortgage Banker, MBA Vice President Lindell Peterson came up with one of the more urgent arguments. "Is it time that something be done to remove the impediments in state legislation that retard private institutional lending and increase dependence upon the federal government?" he asked. "More specifically, should the time-honored ratio of $66\frac{2}{3}$ % of loan to value be increased and thereby modernized?"

Peterson felt that the conventional loan system is not adapted to the present-day housing market. Also: "The trend toward government-backed loans continues at such a pace that conventional underwriting is rapidly becoming a lost art. State loan limitations were conceived and enacted before our present-day monthly amortized loan enjoyed the wide usage it does today." By getting the legal loan to value ratio "set at a more realistic level or done away with entirely," Peterson felt "the lending fraternity can assume the leadership that has been surrendered to government."



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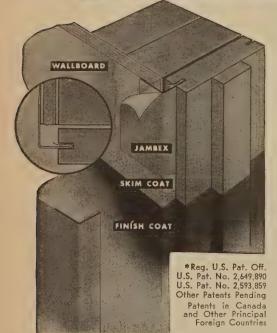
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GAS-FIRED

OIL-FIRED

7 sizes, 85,000 to 6 sizes, 84,000 to 250,000 BTU input 200,000 BTU output

COAL-FIRED. 4 sizes, 20 to 27 inch Gas, oil and coal-fired gravity furnaces available



GAS-FIRED

HORIZONTAL

4 sizes, 65,000 to 125,000 BTU input

HI-BOY

Designed for modern basementless homes. Approved for installation in close quarters. Quiet, compact, attractive.

OIL-FIRED

2 sizes, 84,000 and 112,000 BTU output

COUNTERFLOW



Warm air delivered at bottom to ducts in slab floor or crawl space. Fits into closet or utility room corner.

GAS-FIRED

3 sizes, 65,000 to 105,000 BTU input

OIL-FIRED

2 sizes, 84,000 and 112,000 BTU output

Lies flat in crawl space or attic, or suspended from ceiling anywhere. Occupies no floor space. Ideal for stores, offices, garages.

4 sizes, 70,000 to 135,000 BTU input

OIL-FIRED

4 sizes, 84,000 to 165,000 BTU output

Summer Air Conditioners



Vertical and horizontal units to harmonize with Armstrong winter air conditioners. Vertical - four sizes, 2 to 6 ton; horizontal - two sizes, 2 and 3 ton. Package space coolers for commercial use - four sizes, 2 to 6 ton. Air-cooled units in types to suit various applications, 2 and 3 tons.



Heavy Duty Industrial Heaters



Two sizes - 350,000 and 450,000 BTU output, either oil or gas-fired. Other sizes available soon. Twin blowers, induced draft. Units may be installed vertically (as illustrated) for upward air delivery, or suspended for downward or horizontal air delivery. Factory assembled, wired and fire tested.

Guaranteed

Armstrong furnaces are guaranteed in writing for ten years. Armstrong summer air conditioners are guaranteed in writing against cooling unit failure for five years.



SEND FOR THIS FREE NEW-HOME PROMOTION KIT

For the first time in the industry, a complete cost-free promotion kit to help you sell. Simple, effective. Write for a sample kit, or mail the coupon below. You'll also

receive the latest Armstrong consolidated catalog, a mighty useful reference book on heating and cooling.

COLUMBUS, OHIO

COMPANY

DES MOINES, IOWA

Mail to Armstrong Furnace Company

Dept. HH, Columbus 8, Ohio or Des Moines 9, Iowa

Send me a sample of your New-Home Promotion Kit and a copy of your latest Consolidated Catalog.

Name	
Company Name	
Address	

_Zone___State.

3. Will self-help work as a means for largescale rehabilitation?

4. What kind of municipal organization is best for renewal? This is a current topic of hot debate among renewal experts. Almost every city in the forefront of the movement has a different setup.

5. How can cities best meet the cost of improving municipal services in renewal areasas they must to win US cash assistance? What part do local assessment practices play in keeping slum housing profitable? Many an expert argues that underassessment of land and overassessment of blighted buildings contributes a senseless push toward overcrowding of old housing.

Altogether, the research suggestions would involve something like \$1 or \$2 million worth of investigation. ACTION itself does not have that kind of money. Moreover, it would take several years, at best, to get the studies made. ACTION's Meyerson hopes to get much aid from other research groups in doing the actual digging for facts. The pace of ACTION's research will depend on its ability to raise a sizeable budget through trade associations, public interest groups and other interested citizens.

The field is so broad, the need so pressing that everybody's help is welcome. Meanwhile the nation, and particularly its housers, owe ACTION a vote of thanks for a good job of defining the problems.—G.B.

National Plumbing Code, adopted by American Standards Assn., offers cost savings to cities that follow it

AMERICAN STANDARD NATIONAL PLUMBING CODE. American Society of Mechanical Engineers, 29 West 39 St., New York 18, N. Y. 186 pp. \$3.50

More than 235 communities snapped up this landmark of progress in code writing before it was formally adopted Jan. 25 by the American Standards Assn. Many other cities (even entire states) are about to.

The widespread acceptance stems from over 25 years of effort by ASA, ASME and government agencies to produce a minimum standard that reflected all the latest research in plumbing practices. Dean F. M. Dawson of the University of Iowa college of engineering was chairman of the coordinating committee which, starting in 1949, sat down with labor. management, government and health agencies, heard their suggestions, hammered out a code acceptable to all.

Now, builders and materials men, weary of the 1,600 local plumbing codes across the US -many conflicting and some obsolete-see a chance to save as much as \$500 per house with the new standardization. Savings would result from 1) use of new products, 2) simplification of assembly, 3) reduction of inventories as much as 75%. Example: present codes call for 600-700 items of cast-iron pipe; the new code slices the list by 200 to 300



KOHLER PLUMBING FIXTURES

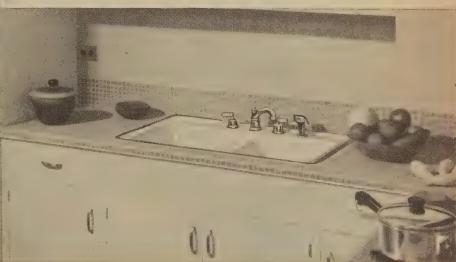
are used exclusively in the six homes of Research Village



ARROWHEAD lavatory, WELLWORTH closet and COSMOPOLITAN bench bath.

Kohler fixtures and fittings in all the bathrooms, washrooms and kitchens are among the provisions for modern comfortable living and beauty in the six homes developed by United States Gypsum at Barrington Woods, Illinois. The architect-builder teams are to be commended for new ideas in practical home design and use of building materials. Kohler fixtures include Cosmopolitan and Minocqua baths; Arrowhead, Gramercy, Chesapeake, Hampton, Jamestown and Strand lavatories; Placid, Wellworth and Bolton closets. Kitchens contain Kohler built-in sinks of acid-resisting enameled cast iron—Delafield and Clearfield.

Kohler Co., Kohler, Wisconsin • Established 1873



DELAFIELD sink

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS

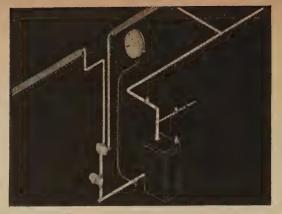
AIR-COOLED ENGINES • PRECISION CONTROLS

NEW PRODUCTS continued from p. 162

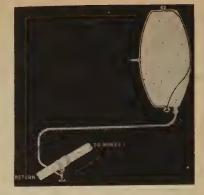
For further details, check numbered coupon, p. 290

b. "HOT WATER BOTTLE" replaces expansion tank; 9 flues in a FAST-HEATING BOILER

Water expands under pressure or temperature changes, and hot-water systems usually require a bulky expansion tank, hung in the attic. In Webster's all-hydraulic *Hydro-Heat* system, the tank is replaced by a "balloon in a bottle": a plastic inner lining in a two-piece steel shell.



Expanding water forces its way into steel shell (right), presses against pressurized plastic lining. When pressure abates, water returns to system.

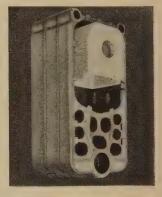


The "balloon" is factory inflated to the system pressure, and the unit hung from a joist and connected to the water return. Under pressure, water can compress the air chamber, then return to the system when the expansion abates without picking up any air. There is no physical contact between water and air.

Purging of the system (up to 6 circuits) is accomplished with the matching *Purge Header*, which provides a single valve for all circuits.

Manufacturer: Warren Webster & Co. 17th & Federal Camden 5, N.J.

c. Designed for either gas or oil, Crane's Sunnyday boiler claims fuel savings up to 15%, by extracting more Btu's from each unit of fuel. Nine fire tubes expose system water to hot gases instead of the three flues in the previous models. Boiler sections have a water-insulated base to prevent heat from



Fire chamber funnels heat past all nine openings, exposing maximum surface. Base of boiler is water-insulated.

the combustion chamber escaping to the floor, and this permits mounting even on combustible floors.

A built-in tankless water heater (24' of copper tubing) in the upper part, the hottest part of the boiler, delivers hot water for bathing, laundry, dishes. For smaller houses, the 88,000 Btu model is only 22½" wide x 34" long x 45\%" high (other models range up to 180,000 Btu's). Styling of the outer jacket is by Henry Dreyfuss.

Manufacturer: Crane Co.
836 S. Michigan Ave.
Chicago 5, Ill.



*THE SURFACE MAKES THE DIFFERENCE!

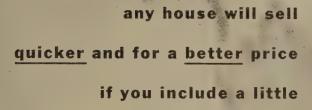


LOOK FOR THE EXT-DFPA

New Overlaid Siding is genuine Exterior-type fir plywood, made with 100 % waterproof glue. Tested under rigid DFPA quality standards. New panels overlaid with a medium-density fused-resin fiber face—smooth, tough, durable, uniform, providing excellent "tooth" for longer-lasting paint finishes.

Named to Pic Million and Marries	NAME
Douglas Fir Plywood Assoc. Tacoma 2, Washington	FIRM
Please send me free	ADDRESS
information on new Over- laid Fir Plywood Siding	CITYZONESTATE
And the second s	Good in USA only

continued on p. 228



if you include a little marble





HOUSE BEAUTIFUL 1955 PACE-SETTER HOUSE

Isn't it worthwhile putting a small amount of MARBLE in the boudoir, bathroom, kitchen or foyer; as window stools, fireplace facing, door saddles or even pure decoration — if the cost of the marble brings many times its value in return? And especially since it is a proven fact that MARBLE helps sell any house!

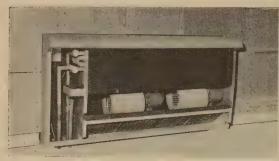
Write for full information to the Marble Institute of America, Inc., 108 Forster Avenue, Mount Vernon, New York.



NSTITUTE OF AMERICA, INC.

NEW PRODUCTS continued from p. 224

For further details, check numbered coupon, p. 290



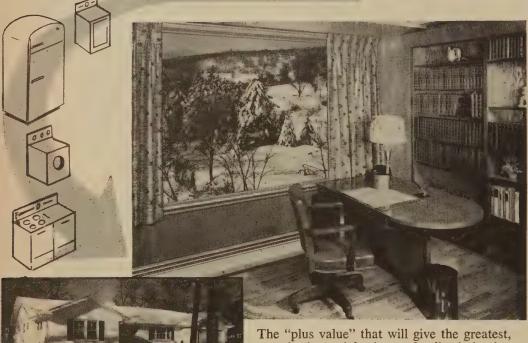


New convectors are unobtrusive because bulk is recessed into wall. Exposed view (left) of Mono-Aqua shows piping, blowers.

BASEBOARD HEATING

by Tuttle & Bailey is a

"PLUS VALUE" too!



The "plus value" that will give the greatest, most lasting satisfaction to the discriminating home buyer is the luxurious comfort of hot water heat . . . with Tuttle & Bailey's smartly

designed Baseboard Heating Panels. And thanks to simplified installation methods it need cost no more to install than other systems. Here are some of the reasons why you should put this great PLUS VALUE to work for you:

UNEQUALED COMFORT. Heat is delivered along outside walls and under windows, stops cold at its source. Gentle, natural, draft-free circulation warms all parts of a room evenly. Floors are warmer, too.

ECONOMY. Efficient T&B finned elements give high heating capacity, plus quick response to thermostatic control. Heat is distributed instantly, because element needs no "warm-up" period. Low floor-to-ceiling temperature differential saves fuel.

APPEARANCE. Styled by Walter Dorwin Teague to harmonize with the most modern home design, T&B Baseboard is so inconspicuous as to be vir-

tually invisible. It can be painted to harmonize with any color scheme.

MORE LIVING SPACE. T&B Baseboard takes up no more floor space than conventional wooden baseboard, permits wall-to-wall carpeting, does not interfere with furniture arrangement.

Please write for complete information, selection data, and installation details.



WALL CONVECTORS put individual heating and cooling into every room

Liquid cooling raises two problems: 1) When the convector tubing is chilled, it does not get the automatic air movement furnished during the heating cycle by the rising of heated air. To get needed circulation, convectors must be equipped with fans, or other forced-air systems. Fractional hp motors drive individual blowers in each unit, with the speed regulated according to cooling needs. 2) Moisture from the room air condenses on the chilled water lines, and must be carried off. Most systems have a drip pan connected to a wasteline system funneling condensation away from the units.

Brown's Mono-Aqua units require only simple piping and electrical connections, and are served by a one-pipe system. Air being circulated is drawn through a filter before being passed across the chilled coils. Twin blowers force air over the entire cooling surface.

The steel cabinet housing comes primed gray or in a two-tone tan, and extends to the floor to prevent dirt accumulation. All units are 24" high, for fitting beneath windows, and range in width from 33" to 69".

tor, but only 35%" deep and 14" wide, so it can be fitted between 16" o.c. studs and will not protrude into the room. Heat exchanger





Filters are standard equipment (Dual-Vector shown here), serve same purpose as single central filter in warm-air systems.

tubing is equipped with 10 aluminum fins per inch.

Installation time for the *Dual-Vector* is quoted at a day and a half for three men in a six-room house. Like other new convectors, each room has individual controls so that only rooms in use need be cooled or

continued on p. 232



The Logan School—Princeton, Illinois

For School Beauty...and Hard Wear... It's Curtis New Londoner Doors

These schools by Perkins & Will, noted school architects, show how Curtis New Londoner hollow-core flush doors, with their beautifully grained, native wood face panels, fit into contemporary school design. New Londoner doors are as durable as they are beautiful. With their exclusive all-wood locked-

in cores, they have the stamina to withstand rough use—to stay dimensionally stable without warping or sagging through a lifetime of service. They are madewith solid-core constructionals on See "Sweet's" for full information—or write for literature. Curtis Companies Service Bureau, Clinton, Iowa.



Washington School—Lyons, Illinois



Logan School—Princeton, Illinois



Douglas School—Princeton, Illinois



Logan School—Princeton, Illinois

CURTIS NO NER LONDONER NEW LONDONE FLUSH DOORS



Mueller Climatrol

announces a new combination year-'round air conditioner

Fits the Cost-Conscious Builder's Budget

Type 128 (gas) - 228 (oil) furnace is a prewired unit compact enough to install in closet, basement, or utility room. $59\frac{3}{4}$ " high (to top of casing) x $47\frac{1}{2}$ " wide by 36" deep (with burner). 100,000-Btu input on gas, 110,000-Btu input on oil. Backdraft damper, standard equipment. Vestibule, optional.

Type 928 cooling unit is a 2- or 3-hp refrigeration assembly mounted on a frame that slips easily into the cooling casing provided with the Type 128-228 heating unit. Operates on single or 3-phase current. Uses same blower as furnace.

There's no doubt about it - this Mueller Climatrol combination unit is one of this year's best bets for turning prospects into buyers of your homes. And, it's priced to fit even your low-cost homes. Write for further details: Mueller Climatrol, Dept. 145, 2020 W. Oklahoma Avenue, Milwaukee 15, Wisconsin.



NEARLY 100 YEARS OF MANUFACTURING QUALITY COMFORT EQUIPMENT

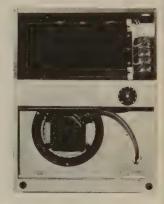
NEW PRODUCTS continued from p. 228



For further details, check numbered coupon, p. 290

heated. In existing houses, the units are installed in series with either one- or two-pipe

Borg-Warner is producing the Hydraline recessed room conditioner, which may be installed vertically between study 16" o.c., or horizontally under the floor, with cooled or heated air directed to perimeter registers. Discharge registers are the diffusion type; they spread air upward and outward along outside walls.



Heat exchange capacity in this 14" x 173/4" unit is equivalent to 60 sq. ft. of gravity radiation under normal conditions.

Penn Boiler's Air-Rad eliminates mains and tributaries, with installation made in series through the individual units. Three uses are possible: cooling only, for mild or hot climates; heating only, as a "starter" installation; or full heating and cooling.

All four convectors are designed to be used with water chillers, unless water of 42°



or less is available. Each permits separate room control, and all can be booked up to single-pipe systems without the use of high velocity pumps.

 ${\bf Manufacturer:}\ \ Mono{\text{-}}Aqua$

Brown Products Co.

97-12 Metropolitan Ave., Forest Hills, N.Y.

Dual-Vector

Union Asbestos & Rubber Co.

332 S. Michigan Ave., Chicago, Ill.

HydralineBorg-Warner Corp.

Hydraline Div.

18538 Mack Ave., Detroit 36, Mich.

Air-Rad

Penn Boiler & Burner

Mfg. Corp., Lancaster, Pa.

continued on p. 236

A Traditional Mark of Quality

America's fine homes have always been sheathed with lumber—sidewalls, roof, and subfloors.

The best modern homes also are sheathed with lumber—because builders and owners recognize lumber as the ideal sheathing material. Leading builders of quality homes feature wood sheathing as an excellent example of sound construction.

Results fully justify the use of this building material. Homes with wood sheathing are easier to sell, and they offer the buyer extra value.



Available in a Wide Range of Widths, Species, Grades and Patterns

A broad selection of Weyerhaeuser 4-Square Lumber items is offered for use as wall, roof, and subfloor sheathing. There are species, widths, and grades to fit all sheathing requirements.

For valuable selling points . . . for greater structural soundness . . . and for true final economy in home building, sheathe with Weyerhaeuser 4-Square Lumber. Your Weyerhaeuser 4-Square Lumber Dealer is ready to deliver the species and type best suited to your needs.



Weyerhaeuser Sales Company

ST. PAUL 1, MINNESOTA



MORE HOUSE LESS MONEY

TREESTREETS STATE

Ma.

-

-

-

Through Better Design and Modern **Production Methods**

The generous use of warm, attractive plywoods for interior finishing is made possible by economies in labor. Spotnailers used in applying these materials provide a strong, permanent, rust resistant fastening with the speed of one-shot mallet drive or recoilless pneumatic drive.

Learn how Spotnails can work for you, too, in doing a better nailing job with a saving of more than half in labor costs.

> Factory representatives in principal cities.

Continuous nailing ¼" plywood panels using SPOTNAILERS and endless conveyor.



EVANSTON 11, ILLINOIS

NEW PRODUCTS continued from p. 232

For turther details, check numbered coupon, p



PIPE INSULATORS keep heating, cooling where they belong, prevent condensation

Biggest drip in the house is often an exposed cold-water pipe, with moisture from the air condensing on it. With chilled water cooling. the problem becomes even more acute.

Two new foamed insulators, Armaflex and Fibrocel, put a cellular layer between the cold pipe and any humid air The first is a foamed plastic in tubular form that can be slipped right onto pipes during installation. Where lines are already connected, Armaflex is slit down its length, snapped into place, then sealed with a special adhesive. No vapor barrier is required. Because the material, like foam rubber, remains flexible, it can follow any curve that the tubing itself can form. Four sizes: 5%", 7/8", 11/8" and 13%"; all are made in 6' lengths.

Thermal conductivity at 75° is .28, about that of cork board, and it is rated for a temperature range of 32°-200° F.

Fibrocel VB is a molded silica product formed by heat expanding the raw silica



aggregate, forming it into half circles, then covering the insulation with a 3-ply vapor barrier (metal foil and kraft paper). Both insulators are fire resistant. Fibrocel is thermally efficient at temperatures from 35° to 225°, does not shrink or expand, and resists

Price: Armaflex, \(\frac{5}{8}'', \) 33\(\chi; \) \(\frac{7}{8}'', \) 39\(\chi; \) \(\frac{1}{8}'', \) 42¢; 1%", 45¢ per ft.

Manufacturer: Armstrong Cork Co. Lancaster, Pa.

Price: Fibrocel, 1" pipe diameter, 32¢ per

lin. ft.

Manufacturer: Johns-Manville Corp.

22 E. 40th St. New York 16, N.Y.

continued on p. 240



HERE AT LAST... CONTROLLED LIGHTING FOR HOMES!

Have you ever wondered why, in this age of marvels, the lighting in homes should still be limited to old-fashioned "on-or-off"?

Why homeowners shouldn't be able to select - at any time they choose, on any occasion they choose - the precise level of light they want?

Why, in other words, you shouldn't be able to design a home with lighting that is truly controlled?

Well, so have we! And new LUXTROL Light Control is the happy outcome.

LUXTROL brings to home lighting - for the very first time - light to match the moment. Light that glides from dark to bright, bright to dark, at the turn of a dial

In living room or TV room, bedroom or nursery, dining room, bar or den, LUXTROI gives homeowners the perfect level of light for every activity, every mood, every decorative effect. Thus LUXTROL gives you a whole new dimension in modern, functional design.

LUXTROL is a soundly engineered autotransformer-type unit approved by Underwriters' Laboratories. It operates smoothly, silently, safely. It controls not only incandescent lighting but fluorescent, too. And it's priced surprisingly low.

What's more, LUXTROL requires no complex wiring. It replaces ordinary wallswitches, is just as easy to incorporate in

But neither words nor pictures can fully convey the LUXTROL story. You have to see new LUXTROL for yourself - in action. Therefore, we invite you to visit your LUXTROL distributor for a personal demonstration. To get his name and address, simply call Western Union Operator 25 in your own city.

Meanwhile, let us send you full design data. No obligation, of course. Just fill out and mail the coupon below.

SUPERIOR ELECTRIC COMPANY

9045 Demers Ave., Bristol, Conn.

Please sen	d me	full	design	data	on	new	LUXT	RO	t
Light Contr	01		_						

Name			
Street	 	 	

City_ Zone_ ___State_





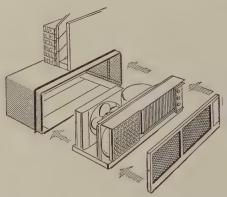
NEW PRODUCTS continued from p. 236

For further details, check numbered coupon, p. 290

IN-THE-WALL AIR CONDITIONER will go into 350 model homes in a "mass-sampling"

Built-in room coolers are to be offered as optional equipment in new houses. The *Tywel* (that's vacuum cleaner Lewyt, spelled backward) unit is only 15" deep, and is designed to be built into any wall with a minimum of overhang, inside or out. Tywel has contracted to install the units in 350 builders' model houses throughout the country, and the buyer can have one or more coolers included in his new house on an optional basis.

Units are 14" high and 32" wide, and the entire mechanism may be slid out of its enframing case for service. Both ½-hp and ¾-hp models will be made. Projection into the room is adjustable from 2" to 6", and controls are mounted behind one side panel.



Because installation is in the wall beneath the window, there is no interference with light or ventilation.

Through this optional plan, Tywel feels that the builder will be able to offer the buyer just the amount of air conditioning he wants, while leaving him free to add additional cooling in the future. It would be simple to run outlets to possible future locations during rough wiring, so that electrical hookup of additional units would be inexpensive.

Price: ½ hp model, approx. \$200; ¾ hp, slightly higher

Manufacturer: Tywel Mfg. Corp.
5702 First Ave.
Brooklyn 19, N Y.

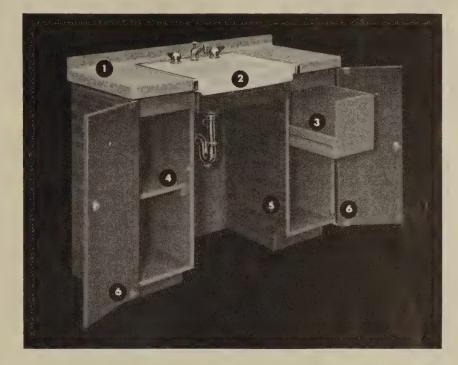
continued on p. 244

Lavatory Ensemble

To put more quality "sell" in the homes you build...

- Wood-core counter-top available in three color patterns. Textolite or Formica laminated plastic.
- "Countess" lavatory in choice of white and seven colors. Embassy or Neu-Rainier trim. Dial-ese supply.
- Medicine drawer with check stop. Easily removable for cleaning.
- Stationary shelf utility cabinet.
- One-piece wood cabinet, faced with choice of three laminated-plastic wood-grained color patterns.
- Doors have semi-concealed hinges, chromium plated knobs, roller-type spring latches.

Size: 42 x 181/2 inches



Almost every home buyer wants built-in lavatories these days... and here's one you can easily afford to put into even your lowest-priced homes.

Crane's popular "Countess" lavatory, styled by famed designer Henry Dreyfuss, now comes with its own pre-built wood-grained cabinet and Textolite or Formica counter-top... and at a real budget price! Attractive design. Lots of storage space . . . and lots of counter space. Available in a wide selection of color combinations for bathrooms, powder rooms—even bedrooms.

Why not ask your plumbing contractor about the modern new Crane "Countess" Lavatory Dressing Table Ensemble? They're so easy to install he'll be happy to see them in your specifications.

CRANE CO.

General Offices: 836 S. Michigan Ave., Chicago 5, III.
VALVES - FITTINGS - PIPE - KITCHENS - PLUMBING - HEATING

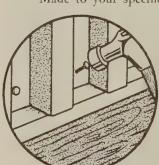
ITS SECOND CENTURY
OF QUALITY
Founded July 4, 1855



provide many times more attic venting area than even the largest gable-tip louver, because they vent the entire gable . . . from plate to rafter across the full width of the house!

Deep square cross section baffle design affords complete weather protection. Insect screening across entire inner face and inside flashing are integral parts of the Maco all-gable louver.

Made to your specifications of pitch and width, Maco all-gable



louvers are packed one gable end to the carton so that no time is wasted in the field in needless sorting before assembly...sections go up as they come from the carton.

Erection is fast and entirely from the outside . . . determine location of center channel, plumb, nail in position; then merely lap additional sections into place on either side.



NEW PRODUCTS continued from p. 240

For further details, check numbered coupon, p. 290

k. MAGNETIC LATCH has enough "pull" to hold even heavy screen doors

Cabinet, closet, sliding—even outside screen—doors can be held securely shut with the Heppner magnetic latch. This $\frac{1}{2}$ oz. device exerts a 10-lb. force, 320 times its own weight. The $\frac{21}{8}$ " x $\frac{1}{2}$ " unit is packaged for mount-



ing, and a tack instantly and accurately locates the striker plate hole. Alternate mounting slots permit the latch to be attached in any position.

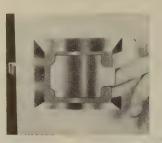
Price: 49¢ ea.

Manufacturer: Heppner Sales Co. Round Lake, Ill.



KNOBLESS DOOR LATCH opens at a finger touch, cannot scar walls

A touch of a fingertip is all that is needed to open doors equipped with Soss's Lev-R-Latch. A section of the flush face acts as a lever; when drawn back, it actuates the bolt.





Beveled edges protrude only ½" from the face of the door, and face plates are of bronze alloy. Installation consists of boring two holes, positioning the bolt, and screwing on the face plates. Just three parts comprise the entire assembly. A locking mechanism is available.

List price: \$3.05, with lock, \$3.40 Manufacturer: Soss Mfg. Co.

21777 Hoover Rd. Detroit 13, Mich.

continued on p. 250











a Concrete Masonry fireplace-wall adds a luxury look at low cost

A fireplace-wall built with concrete masonry adds little in cost; it adds much in sales appeal. Many builders now include two fireplaces — one in the living room, another in the basement or lower-level recreation room.

The dramatic textures and varied patterns of exposed block walls add distinctive charm and beauty to any room — from living room and den to kitchen and bedrooms. Color choices are limitless, using durable masonry paints, or integrally colored units, such as split-block. Inside and out, economical concrete masonry adds beauty, fire-safety, and sales appeal to your homes.

Versatile Concrete Masonry offers more:

- Unlimited color, texture and wall pattern variations.
- Beautiful interior walls, too—at a considerable saving in finishing costs.
- Offers buyers the permanence, freedom from upkeep, fire-safety of durable concrete masonry construction.
- Choice of popular masonry wall construction methods: cavity wall, through-the-wall, or furred out.

National Concrete Masonry Association
38 South Dearborn Chicago 3, Illinois



DWYER KITCHENS

Four sizes . . . 39 to 69 inches wide. Gas or electric.

Enduring Quality Throughout Refrigerator interiors are genuine vitreous porcelain on steel, never rust out and easy to keep fresh and clean. Work tops and fronts are porcelain. Never require

repainting, dirt and grease wash off easily. From hinge to tiny switch, every part of a Dwyer Kitchen has been designed and made for long, tough service.

For rarely needed service, every mechanical part is accessible from the front

... no need to disturb the kitchen assembly.

Made by Specialists . . . Dwyer Kitchens are engineered, manufactured in their entirety . . . and guaranteed by an organization which has specialized in compact kitchens for over a quarter century. They are easy to install . . . simple to service . . . last indefinitely.

Write for complete bulletins.

DWYER PRODUCTS CORPORATION

Michigan City, Indiana

Mail coupon for bulletin and complete information

Send Illustrated Bulletin and Complete Information

Name____

Faura

DWYER PRODUCTS CORPORATION
Dept. D-45, Michigan City, Ind.



NEW PRODUCTS continued from p. 244

V

For further details, check numbered coupon, p. 290



m. ELECTRIC HEAT THERMOSTAT samples both air and radiant temperatures

Matching the heat absorption qualities of the human body as closely as possible, White-Rodgers' room thermostat is designed specifically for electric heat. The thermal element is directly exposed to both air and radiant effects, and the switching mechanism mounts into a standard outlet.

Settings between 55° and 85° are possible with a fluid acting as the sensory element. A "cold" position permits heating to be shut



off for week ends or vacations without the entire electrical system being disconnected.

A temperature differential of ½° is possible through the sensitive element, keeping variations in panel temperatures to 5°, or less. Units are furnished to manufacturers complete with name plate.

Manufacturer: White-Rodgers Electric Co. 1209 Cass Ave. St. Louis 6, Mo.



n. ELECTRIC BASEBOARD HEATERS provide both

Electric heat is getting more attention from builders (Jan. issue), and manufacturers. Newest entry is the *Chromalox* baseboard, which encloses a resistance heating element continued on p. 254

SALES APPEAL INTO YOUR HOME!



Aluminum shower doors add sales appeal because they maintain their shining good looks under hardest usage. Corrosion-resistant. No rust stains.



Aluminum garage doors add sales appeal because their light weight makes them easy to open and close. Clean, handsome appearance. Strong, durable.

Your speculative houses are easier to sell when you use aluminum building products. That's because aluminum products are usually associated with quality houses.

Among aluminum's advantages are light weight, strength, corrosion resistance, economy, modern beauty.

As a basic producer of aluminum, we do not make any of the products shown here. Our efforts are put behind the job of serving manufacturers—to help improve their products and reduce costs.

Engineering assistance is available from our qualified aluminum engineers. Or for names of building products manufacturers who will be glad to work with you, contact the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc. General Sales Office, Palmolive Bldg., Chicago 11, Illinois; Executive Office, Kaiser Bldg., Oakland 12, California.



Koiser Aluminum

setting the pace—in growth, quality and service

Kaiser Aluminum helps build demand for aluminum building products like these through consistent, colorful advertising in national magazines like Saturday Evening Post and Time.



LONG LENGTHS are assembled on the ground, lowered into trench, and tapped into position to make a root-proof, watertight joint. Easy to handle, quickly installed. Only Perma-Line is available in 5, 8, and 10-foot lengths.

L-o-n-g lengths make PERMA-LINE the quickest sewer pipe to install

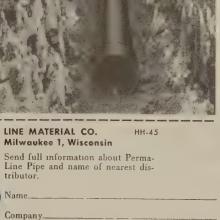
Perma-Line is the only fibre pipe available in 5, 8, and 10-foot lengths. It goes in fast, resists ground heaving; tapered joints are root-proof and leakproof, and the pipe lasts for a lifetime. It can't rust, shatter, crack, or leak. It's strong, light, tough. In solid pipe for sewers and drains; perforated for field tiling, footings, and septic tank beds. Full line of couplings, fittings, bends, and adapters to connect to soil or sewer pipe. Many uses, in homes, farms, industry.

Write L-M, or mail the coupon.

PERMA-LINE Pipe



(a McGraw Electric Company Division)



__State_

Address____

NEW PRODUCTS continued from p. 250

For further details, check numbered coupon, p. 290

in a steel case, providing convected heat to counteract drafts on outside walls and radiant heat to increase comfort at floor level.

Baseboards come in 5', 3', and 1' lengths, are 9" high and 21/2" deep, and produce approximately 544 Btu/h for each foot of baseboard, (160 w. per ft.), about equivalent to hot-water baseboards using 180° water. Normal installations will require heaters only along the outside wall of a room.

Mounting may be flush to the wall, or recessed the depth of the plaster. Splice plates and corner pieces are available to fill out odd (less than 1') lengths, Wiring connections can be made from rear, bottom or either side.

Like all forms of electric heat, Chromalox heaters demand individual room thermostats, located on inside walls, for peak performance.

Price: 5' section, \$37.50 Manufacturer: Edwin L. Wiegand Co. 7500 Thomas Blvd. Pittsburgh 8, Pa.



FIRE ALARM puts sentries throughout the house, signals temperature rise

Catching fires before they build up to the dangerous stage is the job of the Fire Belle. When abnormal temperatures build up, the detector sounds a central alarm and indicates the location of the danger with a light.

Sensing element is a fused link that melts at 136° (174° links are furnished for furnace rooms or other high-temperature areas). Elements are placed on ceilings or high on walls to detect heat before the air becomes dangerously superheated.

Standard system consists of four elements for each of three zones, but as many as 30 elements may be installed.

Price: \$55, not installed

Manufacturer: Minneapolis-Honeywell Co. 2753 Fourth Ave South Minneapolis 8, Minn.

continued on p 258

P&H builders get

ON-SITE SAVINGS

SELLING

LAND



A 6 man crew can have a P&H Home up and enclosed in 6 hours. Sections are unloaded from the truck in order; there's no wasted motion or material. Subs go in and out on schedule. There are no delays. P&H Homes are usually finished 30 days after financing approval.



Selling is easier with P&H Homes because they offer so much more—in construction, materials, space and design—than others in the \$6,650 to \$20,000 class. P&H helps you with advertising, sales planning and promotion, too.

If you're having land troubles—finding it or using it wisely—Harnischfeger's P&H Homes experts may well have your answer. When you build P&H Homes, you can get help in land procurement, planning, zoning and development. Or, if you have land now, they'll advise you on the best use of it.

HARNISCHFEGER

54 Spring St., Port Washington, Wis., Phone 611



257





APRIL 1956

Joseph L. Eichler and his prize-winning architects, Jones & Emmons, A.I.A., know the important points of difference between Arcadia and other sliding glass doors. That's why they specify Arcadia exclusively for Eichler Homes. For even a single point of difference may pay off with added profits on your present project. Spend five minutes with Arcadia's 1955 catalogand see!

there's more to



sliding glass doors

than meets the eye!



ARCADIA METAL PRODUCTS . ARCADIA, CALIFORNIA

National member Producers' Council, Inc. and Natl. Assn. Home Builders. Also member Home Builders Institute and Building Contractors Assn.

NEW PRODUCTS continued from p. 254



For further details, check numbered coupon, p. 290



HEAT PUMPS grow more compact, need only 9.8 sq. ft. of floor space

After three years of heat pump production (almost 3,000 units) General Electric has drastically revamped their air-to-air Weathertron. New models take 20%-33% less floor space, and performance characteristics have been improved. Both 3-ton and 5-ton heat pumps are in 28" x 48" x 74" cabinets, and all servicing is done from the front.

Nominal ratings are 3- and 5-ton, but net cooling capacity is 39,000 and 56,000 Btu/h (33,600 and 56,800 in 1954 models). On the heating cycle, output is 75,300 and 104,400 Btu/h, with supplementary electric heat cutting in at 30° F.

Another improvement is the addition of a five-year factory warranty on the complete refrigeration circuit (one dealer figured that this meant a \$100 saving to him for service).

GE suggests these comparative operating costs: @ 2¢ per kwh, the Weathertron will cost no more than gas at $12\frac{1}{2}$ ¢ per



therm, or oil at $13\frac{1}{2}\phi$ per gal.; @ $1\frac{1}{2}\phi$ per kwh, it would equal gas at 91/2¢ and oil at 10e-12e

Resistance-type auxiliary heaters are integral in the Weathertron, installed internally and wired at the factory, but may be field modified in steps of 2.6 Kw. Outdoor air thermostats controlling this supplementary heat are included in the basic unit. An internal fuse block for the heaters is provided wherever local codes permit.

Price: 3-ton, approximately \$3,000, including installation and ductwork

Manufacturer: General Electric Corp. 5 Lawrence St. Bloomfield, N.J.

continued on p. 264

НОМ

prospects of adequate storage Precision and Simplex Folding Stairspace. ways can help your homes move fast for more profits!

PRECISION QUALITY

Plus Sales Features

AMERICA'S NO. 1 STAIRWAY

Stocked by 130 leading jobbers in the U.S.A. and Canada.



SEVEN EXCLUSIVE FEATURES

- 1---HYDRAULIC SAFETY CHECKS
- 2-ACTUATED BY COUNTERWEIGHTS
- 3-LIFE-TIME ROLLER BEARINGS 4-RUGGED AND STRONG
- 5-INSULATED DOOR PANEL
- 6-FULL WIDTH SAFETY TREADS
- 7-FITS ANY CEILING HEIGHT
- TWO STANDARD SIZES: 8'9" & 9'9"

SIMPLEX QUALITY

Plus Low Cost



NO. 1 PROFIT-MAKER

New! BALANCED SPRING AC-TION for effortless operation.

- SIMPLE AND EASY TO OPERATE RUGGED AND STRONG TWO STANDARD SIZES—8'3" & 9'9"
- NO. 1 KILN DRIED LUMBER— HEAVY GALVANIZED STEEL— ALL PARTS SECURED BY BOLTS AND SCREWS—NO NAILS SHIPPED IN ONE PACKAGE MANUFACTURED IN PRECISION'S MODERN PLANT.



MANUFACTURED BY PRECISION PARTS CORP. 400-HH North First Street @ Nashville 7, Tennessee



Here's a man with the answer. He's a sales representative for an appliance distributor.

He sold the appliances for this model house. The builder bought them. But our salesman is still selling. Because he knows the ranges, the washers . . . all the appliances that are going into these houses . . . have to be sold twice. To the builder, yes. But most importantly to the home purchaser. He's the real buyer.

Our sales representative is out here at the development to help the builder sell that house buyer. He knows the sales features built into his products. Knows that home buyers in this project will recognize them, too. How? By the ads they've read. Ads that have spurred them on to buy a house. Ads that have pre-sold them on the products they want in that house.

So our salesman makes sure that his appliances will be tied-in with these ads. Advertisements, for example, that appear in LIFE. He knows LIFE is the biggest . . . knows that this builder does too.

And he's right. Builders (and plumbing and heating contractors, too) last year ran far more local advertising tied in with LIFE than with any other magazine.

That's why, more than ever before,

in this changing, building America

LIFE helps make the sale!

Majestic



A triple feature for your project or custom homes

AN EYE-CATCHING MODERN APPLIANCE



INCINERATES ALL BURNABLE TRASH



INCINERATES
GARBAGE, TOO

Sells Homes Faster

For a single extra convenience product that has triple buyer-appeal, try this Majestic complete disposal system in the homes you build.

No home is truly modern if it lacks complete indoor disposal of both burnable trash and garbage. With a Majestic installed in basement, utility room, or kitchen, prospective home-buyers are thrilled to picture their rubbish woes ended by a silent flame.

Gas-fired models, AGA approved, use either natural, manufactured, or bottled gas for hooded-pilot drying and direct-flame incineration. Economical fuelless models are also a part of the *complete* Majestic line.

SEE YOUR MAJESTIC SUPPLIER OR WRITE

The **Majestic** Co., Inc.

413-A Erie St., Huntington, Indiana

NEW PRODUCTS continued from p. 258

For further details, check numbered coupon, p. 290





q. BONDING AGENT fuses new cement or plaster to any other structural material

Any material may be resurfaced with cementitious products if first treated with Leplex. This viscous, light green liquid is sprayed or brushed on, and allowed to dry (1 to 2 hr.). When dry, it permanently adheres to any surface, whether porous or nonporous. A topcoat of cement, plaster or putty may then be applied. The moisture in the finish coat softens the Leplex film and causes a bond that fuses the two layers.

Tests of Leplex bonds show that the cement surface will fracture under loading before the



bond itself will fail. And freezing-thawing cycles do not harm the bond. In tests, finish coats have been applied over stucco, concrete, glazed tile, metal, wood and plaster.

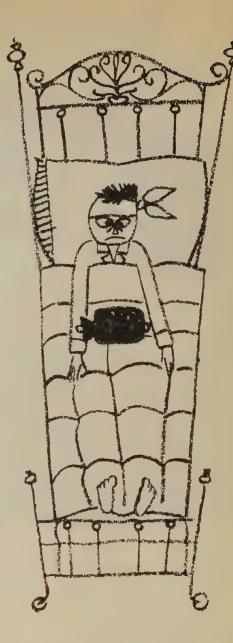
Coverage ranges from 200-400 sq. ft. per gal., depending on porosity of substratum, and method of application,

Price: \$9.50 per gal.

Manufacturer: Lehigh Paints & Chemicals,

Inc. 2733 Lehigh St. Allentown, Pa.

continued on p. 266



no matter how badly you feel

try to hold out until next month to see house & home's big

home merchandising issue

60 pages of sparkling, practical, useful information on

how to sell houses in a competitive market

Don't miss the May issue



These highly functional ready-to-install Prime Windows have many exclusive advantages. Much costly, time-consuming, on-the-job work is eliminated when you specify Rusco! No glazing—no painting—no fitting or later adjusting—no sash cords, weights or balances. This complete window is a finished unit the minute it goes into a building!

Select from a full line of Horizontal Slides—Vertical Slides and Fulvue Vertical Slide types—in all standard sizes and shapes.

THE NEW RUSCO SCREEN AND STORM DOOR COMBINATION (Model No. 55 RSD)

Made of hot-dipped galvanized steel—this new low-cost door has a full-length Fiberglas screen, removable insulating sash optional, attached hardware, patented Thermolok closure strips, vinyl sill sweep, kick-plate and adjustable closer. Attractive, protective grille and house number or initial available at extra cost.





"Hello there! I'm Sally Steele from the Rusco Service Department. We have your free copies of literature, describing these fine Rusco products, ready to mail as soon as you write to me at the address below."

THE F. C. RUSSELL COMPANY

DEPT. 7-MB45, CLEVELAND 1, OHIO . IN CANADA: TORONTO 13, ONT.

World's largest manufacturer of windows, doors and home comfortizing products.



LOOK WHAT RUSCO PRIME WINDOWS OFFER YOU!

Made of Hot-Dipped Galvanized Steel for strength, long life and minimum maintenance. Zinc-treated, Bonderized and finished with baked outdoor-type enamel for protection against weathering.

Available with Insulating Sash—and Fiberglas screen, as an integral part of the unit, Insulating sash gives Rusco's exclusive MagicPanel® year 'round, rainproof, draft-free ventilation.

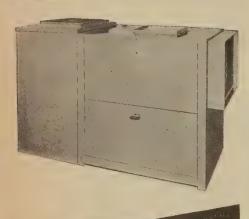
Built-In Waterproofed Felt Weatherstripping. Makes Rusco Windows completely weather-tight, eliminates metal-to-metal contact, noise and rattling.

Positive Automatic Locking of vertical slide units in all open and closed positions. Springbolt action.

Smooth, Effortless Operation. Rusco sash sections slide in a felt cushion—easily, quietly, without effort.

Sliding Glass Panels removable from inside for easy cleaning. Sliding glass inserts slip out in an instant for safe, convenient, inside cleaning.





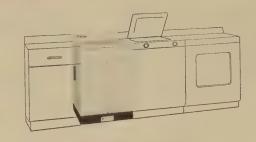


Local water restrictions need not prevent you from installing the finest in modern air conditioning. . . . Barkow advanced engineering now brings you a new 3 hp. Weatherwise air-cooled home and commercial air conditioner. The CU3-AC features a specially designed condensor housing which can be attached to the unit or disconnected for remote installation. Here is timesaving, space-saving flexibility that mean more sales and more profits! A new cooling-heating switch control can be used with standard thermostats and is also suitable for remote installation. Franchised territories open; write for complete details.

AUG. G. BARKOW MFG. CO., INC. 2240 So. 43rd St., Milwaukee 15, Wis.

NEW PRODUCTS continued from p. 264

For further details, check numbered coupon, p. 290



 water Heaters move upstairs in color and table-top models

One-floor living brings much of the mechanical equipment of a house right into living quarters. A. O. Smith's newest *Permaglas* water heaters make a positive virtue of this with two new models; a noncylindrical upright model in color, and a counter-top model that fits beside appliances or cabinets.

Although inner tanks are still round, they are housed in 24" square cabinets, 57" to 64" high. Removable face plates are aqua, white and copper. Controls are at eye level, out of reach of children, and permit settings of "warm," "normal," and "hot." Heat input



Eye level controls facilitate adjustment of water temperatures. Colorful front cover is removable for maintenance.

on the 30 gal. models (both gas and electric) has been boosted to 33,000 Btuh, with a hot water delivery increased of 10%.

The second innovation is the electric counter-top model, in either 30 or 40 gal. capacities. Sized to fit into base cabinet or washer and drier arrangements in kitchen or utility room, the heater is 40" high x 24" x 24".

Chief advantages are the extra counter or work space provided by the heater top, and the conservation of hot water resulting from having the heater close to the point of use.

All controls and connections are at the top and front of the unit for convenience. A high-limit control automatically shuts off the current if the thermostats fail. All *Permaglas* heaters have rust and corrosion-proof, glass-lined heating tanks.

Prices: 30 gal. upright, \$149.90 30 gal. table top, \$139 40 gal. table top, \$153

Manufacturer: A. O. Smith Corp.
Permaglas-Heating Div.
Kankakee, Ill.

continued on p. 274

specify...Cabots

for colors that retain the natural beauty of the wood

Cabot's

CREOSOTE STAINS



"We have been extremely gratified by the effect we have been able to achieve with Cabot's Stains."

Gerald Luria Luria Brothers, Inc., Builders, Arlington, Va.

Cabot's Stains enhance the grain and texture of smooth or rough-sawn wood siding and shingles and add years to their life. The high content of creosote oil guards against decay and insects. Due to its careful refining, these stains may be painted over later if desired.

- Will not crack, peel, or blister
- Easy and economical to apply
- Cost less than half as much as good house paint.

Available in 18 modern colors ranging from rich reds, greens, and browns to soft, weathering grays.

Jamuel babot

Cabot products are consistently advertised in



Write for color card and name of nearest

distrib	outor in U	. S. or Car	ada
SAMU	IEL C	ABOT	INC.
430 Olive	er Bldg.,	Boston 9	, Mass.

CLAY PIPE will serve 10,000 NEW Homes in Los Angeles Community

Clay Pipe will be installed by the mile during the next 10 years to serve a \$200 million community planned for the Palos Verdes Peninsula. The first subdivision alone, which is within a mile of the Pacific Ocean, requires nearly 10,000 feet of Clay Pipe. Ronald W. Bishop, City Engineer of Torrance, Calif., is in charge of the initial project, and the Colich Construction Co. are the sewerage contractors. Clay Pipe is being used exclusively on this project.



CLAY PIPE FITTINGS SPEED INSTALLATION



You can always get fittings to match when you install Vitrified Clay Pipe. This Double T Branch, for example, is one of the many Vitrified Clay Fittings that make possible the utmost in flexibility and speed of installation.



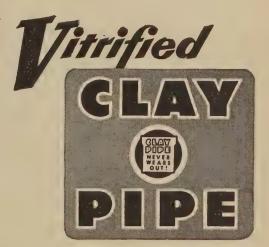
Wherever you see men and machines preparing the vital underground arteries of a modern pre-planned community . . . look for Vitrified Clay Pipe. The "old-timers" in the construction business have always used it . . . and progressive new engineers and contractors are discovering that there's no safe substitute for Clay Pipe. It's completely unaffected by the corrosive action of sewer acids and gases. Detergents can't soften it. Caustic drain-cleaning compounds can't weaken it. Heavy backfill loads can't cause it to oval or squash out. And a wide variety of joint designs and jointing methods insure fast installation and tight, permanently root-proof joints. Always specify Vitrified Clay Pipe. It's guaranteed for half a century!

NATIONAL CLAY PIPE MANUFACTURERS, INC.

1520 18th St. N.W., Washington 6, D. C.

206 Connally Bldg., Atlanta 3, Ga.
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.
703 Ninth & Hill Bldg., Los Angeles 15, Calif.
311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio

C-555-1





With these two FREE guides and genuine TECO WEDGE-FIT ring connectors —

You can build your own

TECO TRUSSED RAFTERS

easily, quickly, economically, right at the job site.

Easy to Fabricate—Just cut the four different pieces from common 2x4s and 2x6s, quickly and accurately on the simple fabricating bench you can build from the detail drawing that's FREE—

Assemble Without a Jig—Precision assembly of the four members, in pairs, is fast and easy with TECO Wedge-Fit connectors in conforming grooves cut with the special TECO grooving tool—

Quickly Erected—Just swing TECO trussed rafters into place on exterior walls—no interior load-bearing partitions needed . . .

and for added strength throughout, tie down your trusses with TECO Trip-L-Grip framing anchors.

Send today for the FREE detail drawing of the portable Fabricating Bench, and a copy of "How to Build Wood Frame TECO Trussed Rafters" giving detailed instructions on fabricating, assembling, and erecting these versatile roof trusses.

TIMBE	R EN	GINEERI	NG CO	MPANY	Н	IH-5	553
1319	18th	Street,	N.W.,	Washington	6,	D.	C.

Please send FREE drawing of Fabricating Bench design and copy of "How to Build Wood Frame TECO Trussed Rafters".

NAME		•••••
FIRM		
STREET		•
CITY	ZONE	STATE

NEW PRODUCTS continued from p. 266

For further details, check numbered coupon, p. 290

SINGLE-HANDLE FAUCET fits any sink deck, is priced for low-cost houses

The luxury and convenience of a single-handle faucet for kitchen or lavatory is available in the *Gyro* mixing faucet. Mounting is through the center hole, and a removable chrome soap dish covers the unneeded faucet openings. The *Gyro* faucet fits any deck type



of sink: steel, cast iron, set into either a wood or laminated top.

Revolving the handle from right to left changes the temperature from cold to hot, or any ratio between. Lifting turns on the water, and the shutoff is pressure-assisted for a positive, dripless shutoff. There are no washers or seats to replace or renew.

Price: \$14.95 to \$17.50

Manufacturer: Gyro Brass Mfg. Corp.
51 Urban Ave.
Westbury, L.I., N.Y.

t. LOUVERED LIGHT in wall plates can be night light or front door convenience

Fumbling for keyholes, the cartoonists' venerable gag, is eliminated with the *Jamlight*. Mounted in the jamb, the unit throws light



on the door lock with a flip of a toggle switch.

Face plates for Jamlights are made in every combination of switches and outlets so the unit can be used as a night light in any room in the house, or as a safety light in a dark hall or at the head of stairs. Louvers direct all light downward.

Price: \$2.95

Manufacturer: D. D. Delashmutt

414 US National Bank Bldg. Denver 2, Colo.

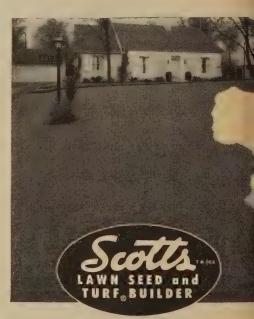
for the same cos



The quickly constructed, "bargain" seeded lawn is soon detected by the owner. Then he'll tear it up and start over . . . probably put in a lasting Scotts. Blawn which he expected in the first place.

You can give home buyers **Scotts** famous lawn perfection for the same cost and planting time . . . for you need to sow only 1 pound instead of 3. Most important is the fact that Scotts is 100% perennial grasses and 99.91% weed-free,

For greater home value—for downright economy—for unexcelled lawn beauty, use and recommend **Scotts**. Start profiting from the sales appeal saying, "My homes include permant Scotts lawns." Write our turf specialists for recommendations and details on Scotts builder service prices.



FREE LAWN BUILDING HELP

Read Lawn Care®

Keep up-to-date on lawn building developments. A complete file of bacissues on soil conditioning, grading, drair age, feeding, seeding, etc., plus subscription to future issues are yours FREE Just drop a card to:

O M Soft & SONS CO 81 Spring St, Marysville, Ohio also Palo Alto, Calif. Dramatic new sales feature

Be first in your area to capitalize on Sound Conditioning

Quiet homes are easier to sell. Now Cushiontone gives your houses beauty and quiet-plus national advertising support



ESPECIALLY DESIGNED FOR HOMES. Armstrong Cushiontone with the new Full Random design is smartly styled for the home. Women like the modern appearance of Cushiontone Full Random-it eliminates the old-fashioned tile look. Cushiontone e-painted ceiling finish that gives your houses a salable ture—quiet. It can be washed or repainted.



FIRST TO BE PROMOTED NATIONALLY FOR HOMES. With Cushiontone you can cash in on the sales appeal of a nationally known brand name. Right now families in your area are reading full-page ads in The American Home and Better Homes and Gardens that tell how Armstrong Ceilings quiet kitchens, game rooms, and entire houses.



QUIET KITCHENS MAKE IMPRESSION. Demonstrate the benefits of Cushiontone. Slam a door, clap your hands, ask prospects to raise their voices. They'll hear how the sharp edge is taken off distracting noise. If you have open planning, explain how Cushiontone prevents kitchen sounds from spreading. "Built in" quiet will make a strong impression on prospects and may often be the important extra that will close the sale.



GET FREE PROMOTIONAL MATERIAL. Merchandise the new comfort of sound conditioning by putting up signs in front of your homes and in every sound-conditioned room. Give prospects Cushiontone literature. Feature Cushiontone in your local advertising. For free material, see your Armstrong building products dealer or write Armstrong Cork Company, 4204 Sixth Street, Lancaster, Penna.



EASY TO INSTALL. skill or tools required. Just nail 1" x 3" furring to joists, nail 12" x 12" Cushiontone to furring, and the ceiling is finished. With one lowcost, quickly installed material you have a finished ceiling that also sound conditions your houses.

Armstrong CEILINGS

Cushiontone® • Temlok® Tile • Perforated Temlok Tile

The smart-looking tiles that quiet homes

MAKE IT MODERN...



ORANGEBURG Root-Proof PIPE AND FITTINGS

It takes modern materials and modern methods to cut costs. That's why more and more builders and architects are turning to Orangeburg Root-Proof Pipe...it is ideally suited for modern construction methods.

Today's construction demands speed and quality, and Orangeburg's speed of installation and proved quality are unsurpassed by any other pipe. Over one million installations have saved time, trouble and money for homes from coast to coast.

Orangeburg's famous Taperweld joints seal root proof with a few hammer taps...no cement, no calking, no compounds. The long 8-ft.

lengths are so light one man can easily carry several lengths . . . so rugged and durable that drain lines installed 49 years ago are good as new today.

Get all the facts, for where time is money, it pays to use genuine Orangeburg Root-Proof Pipe. Made in 2", 3", 4", 5" and 6 inch sizes.

Use Orangeburg Root-Proof Pipe for house sewers, storm drains and other non-pressure lines. Use Orangeburg Perforated Pipe for septic tanks disposal fields, foundation drains, wet spots everywhere. Remember . . . no house is really modern unless it is modern underground, too.

Write Dept. HH-45 for more facts

ORANGEBURG MANUFACTURING CO., INC., Orangeburg, N. Y. West Coast Plant: Newark, Calif.

GET GENUINE ORANGEBURG



TECHNICAL PUBLICATIONS

- 173. BUILDING PRODUCTS. Catalogue 54-L.
 Leigh Building Products, Division Air Control Products, Inc., Dept. HH, Coopersville,
 Mich.
- 174. LIGHTING. Lighting with That Lightolier Flair. Lightolier, Inc., Dept. HH, 346 Claremont St., Jersey City 5, N.J.

Full color reproductions of some of Lightoiler's most glamorous fixtures for the contemporary house.

175. WINDOWS. Malta Wood Window Units.
Malta Mfg. Co., Dept. HH, Malta, Ohio. 8
pp. 81/2" x 11"

Specifications, details and opening sizes for Malta's double hung, picture, horizontal sliding and multipurpose units. The back page lists local outlets for these windows.

176. BUILT-INS. Built-In Ovens. Martha Washington Distributing Co., Dept. HH, 163 Avenue A, Bayonne, N.J. 4 pp. 8½" x 11"

Complete specifications and installation details of the new Martha Washington line of built-in gas and electric wall ovens and surface cooking units.

177. HEATING. Bell & Gossett Catalogue GK-954. Bell & Gossett Co., Dept. HH, Morton Grove, III. 26 pp. 81/2" x 11"

Nine pages of information on circulating pumps plus details on valves, fittings, air vents, etc., for forced hot water heating and chilled water cooling systems.

178. AIR CONDITIONING. Atmospheric Spray Cooling Towers. 3-B Series. Binks Mfg. Co., Dept. HH, 3122 Carroll Ave., Chicago 12, III. 12 pp. 8½" x 11"

Construction details on Binks towers, including over-all dimensions.

179. INSULATING-WINDOWS AND SCREENS. Bulletin F11.2, Small Homes Council, U. of Ill., Dept. HH, Urbana, Ill. 4 pp. 8½" x 11"

Another definitive work from SHC, this one on the advantages of double glazing, together with tables indicating the expected fuel savings with different methods. Moisture condensation and optimum ways of screening windows are also discussed.

180. PREFABRICATION. Breece Component Parts.

Breece Plywood, Inc., Dept. HH, New Albany, Ind. 14 pp. 81/2" x 11"

For the builder interested in "farming out" his components, this catalogue of prefabricated units will indicate some of the possibilities available.

(continued on p. 282)





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TECHNICAL PUBLICATIONS

(continued from p. 278)

181. PLASTICS. Ceilite Translucent Structural Panels. Ceilite Corp., Dept. HH, Box 278, Allison Park, Pa. 4 pp., 8½" x 11"

Specifications and physical properties for these strong light-admitting panels.

182. HEATING. Conco Ranchiefs. Conco Engineering Works, Dept. HH, Mendota, III. 6 pp. 81/2" x 11"

New specification sheets for Conco's expanded line of gas and oil furnaces.

183. TILE. Vinyl-Cork Tile and Standard Cork Tile. Dodge Cork Co., Inc., Dept HH, Lancaster, Pa. 8 pp. 81/2" x 11"

Newest versions of this bouncy flooring shown in full color, with specifications and installation procedure. Included are the new parquetry and spatter surfaces.

184. PRECIPITATORS. Electro-Air Electronic Air Cleaners. Electro-Air Cleaner Co., Dept. HH, 1285 Reedsdale St., Pittsburgh 33, Pa.

Dimensions, specifications, and installation possibilities for these electrostatic units.

185. AIR FILTERS. Evans Lifelong Air Filters. The George Evans Corp., Dept. HH, Moline, III. 4 pp., 8½" x 11"

Impingement type filters for warm-air heating systems. Specifications and efficiency tests.

186. FLOOR TILE. Designs For Better Floors.

Johns-Manville, Dept. HH, 22 E. 40th St.,

New York 16, N.Y. 12 pp. 8½" x 11"

Color charts of J-M's Terraflex vinyl floor tile, plus illustrations of dozens of designs formed from two and three different color combinations.

187. WINDOWS. Bilt-well Double-hung Window Units. Carr, Adams & Collier Co., Dept. HH, 30 S. Locust, Dubuque, Iowa. 8 pp. 8½" x 11"

Sizes, sectional details and required wall openings for this extensive line of double-hung, awning, hopper and casement windows

188. WINDOWS. 1953 Ceco NAHB Souvenir Catalogue. Ceco Steel Products Corp., Dept. HH, 5601 W. 26th St., Chicago 50, III. 16 pp. 8½" x 11"

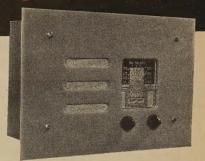
Residential steel and aluminum windows and steel doors. Types and sizes, specifications and sections.

189. HARDWARE. Kwikset Locksets. Kwikset Sales and Service, Dept. HH, Anaheim, Calif. 8 pp. 8½" x 11"

Full details on Kwikset's "400" economy line and the custom "600" models.

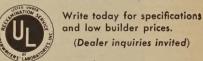
(continued on p. 290)

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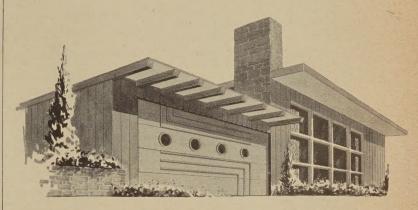
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190. SKYLIGHTS. Daylighting With Wascolite Skydomes. Wasco Flashing Co., Dept. HH, 87 Fawcett St. Cambridge 38, Mass. 12 pp. 81/2" x 11"

The complete line of Wasco acrylic plastic domes, including ventilating as well as lighting-only models. Illustrated with photos and schematic drawings, and complete with specifications and details.

191. HEATING. Complete Line Catalogue. Williamson Heater Co., Dept. HH, 3500 Madison Rd., Cincinnati 9, Ohio. 122 pp. 81/2"

> A spiral-bound compendium of the entire Williamson line of heating and cooling equipment, including the 32-p. section on ducts (Jan. issue, Technical Publications). Request on letterhead.

192. PLYWOOD. Klinkii Plywood. Fiddes-Moore & Co., Dept. HH, 400 W. Madison St., Chicago 6, III. 4 pp. 81/2" x 11"

Data, characteristics and grading rules for this New Guinea-produced plywood (Jan. '55 issue, New Products).

193. FLOORING. Cork and Vinyl-Cork Tile, Catalogue 55. Dodge Cork Co., Inc., Dept. HH, Lancaster, Pa. 8 pp. 81/2" x 11"

Full color illustrations of the standard and vinyl-impregnated cork tiles, plus all installation data.

194. DOORS. Young Flush Doors. Young Door Co., Dept. HH, Novi, Mich. 4 pp. 81/2" x 11"

Specifications, stock sizes and weights of Young hollow-core flush doors.

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